The Mining Journal

RAILWAY AND COMMERCIAL GAZETTE.

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 824.---Vol. XXI.] LONDON, SATURDAY, JUNE 7, 1851. [Price 6d.

TO CAPITALISTS.

TO BE SOLD, A SLATE AND SLAB QUARRY, situate within 6d. per ton cost water carriage from an excellent port in CARNARVONSHIRE, extensively opened and ready for immediate productive operation. 1

The LEASE is for TWENTY-ONE YEARS full—Royalty 1-12th.

The WIDTH of the VEIN is about SIXTY YARDS, and its dip, inclination, and stratification are similar to the same features in the great Festiniog Quarries.

The METAL is of the very FIRST QUALITY, wholly free from sulphur or other blemish, kind in rending and working, true in cleavage, and, from its purity, density, and tenacity, is admitted to be superior to the produce of most quarries for the various purposes for which slate slab is polished and enamelled. The colour is a beautiful blue, tinged with purple.

A waterfall descends within 100 yards of the quarry, which supplies an inexhaustible motive-power for the working of machinery.

There are erected on the premises an OFFICE, fitted-up complete; an extensive well-built ENGINE-HOUSE, capable of containing double the present power of machinery, which now comprises a capital water-wheel, 22 feet in diameter, two large circular sawing machines, one large planing machine, water launders, gearing, and everything in the most convenient and complete order, together with about 2000 feet of bar-iron for tramroads, waggons, sledges, and every requisite necessary in the working of a quarry.

A quantity of slabs has been quarried and manufactured, and a price of 4s. per square yard has been obtained for the produce at the quarry.

Satisfactory reasons will be shown for the disposal of the property, and any gentleman or company wanting an investment of this description will find this an opportunity rarely presented, as it is confidently asserted that the merits of this quarry, and its local advantages for facile and economical working, are certainly unrivalled in the Principality,

WILL BE SOLD A BARGAIN.

Apply to Mr. James Bywater, mining agent, 79, Christian-street, Liverpool.

TO BE SOLD, the WHOLE, or PART, of the TAKEE'S INTEREST in the GRANT, for THIRTY-ONE YEARS, from the date of lease (which can be demanded at any time), of a considerable TRACT OF LAND, abundant in MINERAL VEINS, situate at TALSARORA, in MERIONETHSHIRE, on the opposite coast to Port Madoc, and but one mile distant from a shipping place. 2

This district, in which is situate the Crafnant Mine, famous for the richness of its ores, is admitted by all miners to be in the highest degree metalliferous, and that the strata of ground in which the many strong, regular, and well-defined lodes running through this sett are located, are highly congenial for copper.

A shaft has been sunk upon one lode to the depth of about 6 fathoms, from which a quantity of mundic has been raised, as also about 2 tons copper ore, producing 13 p. cent.

Feeling perfectly convinced that a rich deposit of ore will be found at the same shallow depth as at the Crafnant Mine, the advertiser would prefer selling a part of his interest to selling the whole, so that the means, not at present at his command, may be raised to further prosecute the undertaking.

Apply to James Bywater, mining agent, 79, Christian-street, Liverpool.

NORTH WALES.—SLATE AND SLAB QUARRY.

TO BE DISPOSED OF, for a term of years, the valuable SLATE and SLAB QUARRY, called ESGAIR QUARRY, situated in the parish of PENNAL, in the county of MERIONETH. This Quarry was opened at considerable expense by the late proprietor, and is now to be disposed of, in consequence of his death. 3

The quality of the Stone has been proved to be sound and good, and there is every facility for working, there being ample fall for rubbish, and a plentiful supply of water close at hand.

The Quarry is within about a mile of the Machynlleth and Corris turnpike-road, and distant from the shipping place of Derwenlas about five miles—thus rendering the expense of carriage very inconsiderable.

For further particulars apply to Mr. David Howell, solicitor, Machynlleth.

FOR SALE,—The EXTENSIVE and VALUABLE IRON-WORKS, MINING, and FARMING PROPERTIES, belonging to the Storfors Company, and situated in the province of WERMLAND, in SWEDEN, covering an area of nearly 100 English square miles. 4

The MINES belonging to this Company have yielded annually, for the last three years, nearly TWO THOUSAND TONS of PIG-IRON, which have been converted by the most approved process into 1500 tons of steel, of marks enjoying a long-established reputation in the hardware districts of England and the United States of America.

The PROPERTIES embrace SMELTING-FURNACES, FIVE IRON-WORKS, for the conversion of bar-iron, FIVE CORN-MILLS, THREE SAW-MILLS, BRICK KILNS, &c., with all BUILDINGS and FARMHOUSES, in good condition; and the Forests, which cover about 35,000 acres, give a full supply of charcoal for the works.

For further information and particulars apply to Messrs. Dickson Brothers and Co., No. 62, Moorgate-street, City.—London, May 30, 1851.

TO COLLIERY OWNERS.—FOR SALE, BY PRIVATE CONTRACT,—THREE HUNDRED FATHOMS of PUMPS, 11¼ to 13½ inches in diameter; 3 brass working barrels, 12 inches in diameter, and 10 feet 6 inches long; 1 ditto ditto, 12 inches in diameter, and 10 feet 6 inches long; 1 ditto ditto, 10½ inches in diameter, and 10 feet 6 inches long. Also, bucket and clack doorpieces, spears, spear-plates, and bolts, and bottom-rods, complete, for six sets of pumps. 6

Application to be made at the Wearmouth Colliery, Sunderland.

Wearmouth Colliery, June 6, 1851.

STEAM TO INDIA AND CHINA, VIA EGYPT.—Regular MONTHLY MAIL (steam conveyance) for PASSENGERS and LIGHT GOODS to CEYLON, MADRAS, CALCUTTA, PENANG, SINGAPORE, and HONG-KONG. 7

THE PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY BOOK PASSENGERS and RECEIVE GOODS and PARCELS for the ABOVE PORTS by their steamers—starting from Southampton on the 20th of every month; and from Suez on or about the 10th of the month.

BOMBAY.—Passengers for Bombay can proceed by this company's steamers of the 29th of the month, to Malta, thence to Alexandria by her Majesty's steamers, and from Suez by the Honourable East India Company's steamers.

MEDITERRANEAN.—Malta—On the 20th and 29th of every month. Constantinople—On the 29th of the month. Alexandria—On the 20th of the month.

SPAIN AND PORTUGAL.—Vigo, Oporto, Lisbon, Cadiz, and Gibraltar, on the 7th 17th, and 27th of the month.

For plans of the vessels, rates of passage-money, and to secure passages and ship cargo, apply at the company's offices, No. 122, Leadenhall-street, London; and Oriental-place, Southampton.

STIRLING'S PATENTS FOR IMPROVEMENTS IN IRON.—1. TOUGHENED CAST-IRON, which is double the strength of ordinary cast-iron, and only 10s. to 12s. per ton extra.

2. ANTI-LAMINATING IRON, for RAILS and TIRES, &c., at an extra price of from 7s. 6d. to 10s. per ton. Also IMPROVEMENTS in the MAKING of WROUGHT-IRON—saving one process to the manufacturer. 7

The following Iron Manufacturers are duly LICENSED to MAKE the IRON:—

Messrs. BAIRDS'	Gartsherrie, Glasgow.
The CLYDE IRON COMPANY	ditto ditto
The FIRTH IRON COMPANY	ditto ditto
The HERSLEY COMPANY	Tipton, Staffordshire.
Messrs. LLOYDS, FOSTER, & CO.	Wednesbury.
Mr. JOHN WILSON	Dundyvan, Glasgow.

AGENTS.

Messrs. GARDEN and MACANDREW, 34, Dowgate-hill, London.

Messrs. W. & J. H. JOHNSON, 166, Buchanan-street, Glasgow, and 20, St. Andrew's-square, Edinburgh.

Further particulars may be obtained on application to the agents; or to Mr. JEE, civil engineer, No. 6, John-street, Adelphi, London.

STIRLING'S PATENT ALLOYS.—RAILWAY CAR-RIAGE BEARINGS, MILL BRASSES, and all DESCRIPTIONS of CASTINGS, are MANUFACTURED by ALFRED BARRETT, Bishopsgate Foundry, Skinner-street, SOLE LICENSEE FOR LONDON. 8

BELLS of very superior quality (Stirling's Patent) are also SUPPLIED.

TO MINING PROPRIETORS AND OTHERS.

EDGE AND SON ARE THE ORIGINAL INVENTORS OF THE FLAT CHAINS.

EDGE AND SON, PRACTICAL MANUFACTURERS of FLAT AND ROUND CHAINS OF EVERY DESCRIPTION, 9

COALPORT, COALBROOKDALE, SHROPSHIRE,

Respectfully urge the attention of Proprietors of Mines and Mineral Works to the SUPERIORITY of their CHAINS—SPECIMENS of which may be INSPECTED at their HALL, in Class 29, at the EXHIBITION.

They are the original Inventors of the FLAT CHAIN, which has now been in use for nearly 40 years, and is acknowledged to be the best band for Mining purposes; they continue to manufacture them of the first quality, and for excellence of material, workmanship, and durability, they may challenge any house in the trade.

Their improved ROUND CHAIN is superior to the old oval chain, being made straight on the sides, and lapped over further for the weld; they are capable of a far greater strain, the principle they have also applied to CABLES with complete success, and it only remains to be better known to be more generally adopted.

PATENT IMPROVEMENTS IN CHRONOMETERS, WATCHES AND CLOCKS. 10

E. J. DENT, 82, Strand; 33, Cockspur-street; 34, Royal Exchange (clock tower area), Watch and Clock Maker, BY APPOINTMENT, to the Queen and his Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6 gs. each; in gold cases, from £8 to £10 extra. Gold horizontal watches, with gold dials, from 8 gs. to 12 gs. each.

DENT'S PATENT DIPLIEDOSCOPE,

or Meridian Instrument, is now ready for delivery.—Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

MR. JAMES CROFTS, of 4, KING-STREET, CHEAPSIDE, MINING BROKER, renews his OFFERS of SERVICE to CAPITALISTS seeking the means of SECURE INVESTMENTS, which can be made to yield an annual income of 15 to 20 per cent., 11

Mr. Crofts has specially for Sale—

Hennock (13 shares)	Wheal Vincent (750 shares, 3000ths)
East Balleswidden (50 shares)	Llynmalees (25 shares, 1000ths)
Wheal Lovell (3 shares)	Bronfloyd (40 shares)
West Tolgus (5 shares)	Holmbush (8 shares)
West Seton (1 share)	Warleggan (20 shares)
Daren (10 shares)	South Tamar (50 shares)
West Frances (1 share)	Woodman's Well and Broadridge
Roylage, Leek (100 shares)	Okel Tor
Rocks and Treverbyn (100 shares)	Wheal Tremar (20 shares)
Penzance Consols (50 shares)	Bodmin Consols (5 shares)
Herodsfoot, 2 (1024ths) shares)	Lamherooe (5 shares)
Chyprase Consols	

The present dullness in mining shares, and the consequent decline in prices, may be regarded as quite of a temporary character, and capitalists are reminded that the safest period to make purchases is in a depressed market, especially when, as in the present case, the depreciation arises chiefly from the increased value of money. Mr. Crofts can point out regularly-paying dividend mines, which will yield at present prices 25 per cent. per annum interest.

*** Mr. Crofts is not a dealer in shares, but transacts business only for principals.

No. 4, King-street, Cheapside, June 7, 1851.

MR. J. H. MANDEVILLE, MINING AND GENERAL SHARE AGENT, 12

No. 22, CHANGE-ALLEY, CORNHILL.

FRANCIS'S MINING OFFICES, 7, John-Street, Adelphi. —The great importance of the Mining Interest at the present moment renders it necessary that every means should be adopted to place its operations on the plainest and fairest foundation.

The system of representing the Value of Mines, by describing them as Dividend or Non-Dividend Paying, is by no means sufficiently explanatory of their real qualities, for it is clear that mines may come under the first denomination which, nevertheless, differ greatly in value: for instance, some continue to divide large profits for a long time, and some in like manner small profits only, whilst there are others which pay dividends, large or small, as the case may be, but only for a very limited period. The selection of mining ground also requires the greatest care, which, in most instances, can only be applied by or through agents, qualified by long and successful practical experience, combined with local geological knowledge. 13

Mr. MATTHEW FRANCIS, who has, during the last 20 years, without intermission, been engaged as Manager of Mines abroad, as well as in Cornwall and Wales, many of which are making large profits, takes leave to announce, that he has OPENED these OFFICES, where he may be consulted daily from Eleven till Three.

N.B.—Information supplied, without favour or prejudice, as to the present condition and prospects of all mines without distinction, as far as can be ascertained by the closest attention to the best sources of knowledge.

*** The TRANSFER of MINING PROPERTY (such only as is legitimate) negociated on satisfactory terms.

MR. MATTHEW FRANCIS will RETURN from an INSPECTION of MINES in the counties of MONTGOMERY and CARDIGAN on FRIDAY, the 13th inst., when he can be CONSULTED as usual, at his OFFICES, No. 7, John-street, Adelphi. 14

MESSRS. FRANCIS & LIGHTOLLER, MINING AGENTS AND CIVIL ENGINEERS.

OFFICE,—No. 34, EXCHANGE ARCADE, MANCHESTER.

Messrs. Francis and Lightoller, may be CONSULTED by MINING COMPANIES or OTHER PARTIES requiring INSPECTIONS and REPORTS on MINES of every description, or by CAPITALISTS and OTHERS desirous of INVESTING their CAPITAL in MINES or other MINERAL PROPERTIES.

Statistics and other general information connected with Mines and the Mineral Districts given or obtained with the utmost dispatch.

Capt. Absalom Francis having had upwards of 30 years' experience in the practical management of mines, and reported on most of the principal ones in the United Kingdom, applicants may rest assured they will receive full and satisfactory information on matters connected with mining.

Arbitrators, and contractors for the erection of engines and every description of mining machinery.

MINING AND SHARE OFFICES, 16

No. 7, GEORGE-YARD, LOMBARD-STREET.

Messrs. H. BOXALL & CO., in announcing their REMOVAL from Crosby Hall Chambers to the ABOVE ADDRESS, beg respectfully to solicit a CONTINUANCE of FAVOURS so liberally conferred, and at the same time to call the attention of PARTIES seeking profitable INVESTMENTS to the advantages which MINING PROPERTY offers "when judiciously selected," as compared with any other securities: it may be sufficient to state, they can be bought to pay from 15 to 25 per cent. per annum. This is a favourable time for purchasing dividend-paying stock, while greater caution was never more required than at present in selecting from the many new, "and some worthless," schemes, such as are likely to be eventually remunerative.

Our Mr. B. having become a member of the New Mining Exchange, we are in a position to do full justice to our friends, either in the PURCHASE or DISPOSAL of MINING PROPERTY. We publish a daily List of Prices of what may be termed "Active Stock," which we shall be happy to forward to any parties requiring the same.—April 15.

MR. BELL WILLIAMS, MINE BROKER and VIEWER, 17

16, *CASTLE-STREET, LIVERPOOL.*

MR. JOHN DAVIES, MINING SHAREBROKER, 18

No. 38, TOWER-BUILDINGS, TOWER-GARDEN, LIVERPOOL.

MINING SHARES.—Mr. HENRY VATCHER, EXETER, OFFERS his ADVICE and ASSISTANCE to PARTIES willing to INVEST in the ABOVE SECURITIES. Ten years' residence in Exeter, together with periodical visits to nearly all the Mines in Devon and Cornwall, enables him to become thoroughly acquainted with their respective merits.—Mr. VATCHER has at his command, at all times, practical and experienced agents, so that if any inspection is required, the same can be done without delay. 19

MINING AND RAILWAY OFFICES, No. 3, CASTLE-TERRACE, EXETER.—Mr. JOHN JURY, RAILWAY and MINING SHAREBROKER, OFFERS his SERVICES to CAPITALISTS in the PURCHASE or SALE of ANY DESCRIPTION OF PROPERTY; and will be happy to point out a selection of such stock as appear the most eligible, from data that can only be arrived at by those who give an undivided attention to the subject.—Every information afforded (either in person or by letter) to capitalists wishing to invest or exchange their securities, and sales or purchases effected upon the best terms, and at one-half the commission usually charged. 20

MINING OFFICES, No. 75, OLD BROAD-STREET.— Mr. T. P. THOMAS begs to inform his friends that he has REMOVED from No. 3, George yard, to the ABOVE ADDRESS, where he hopes to receive a continuation of their favours. 21

MR. T. JORDAN, MINING SHARE & METAL BROKER, 22

No. 75, OLD BROAD-STREET, CITY.

MESSRS. TREVARTON AND CO., MINING SHARE DEALERS AND BROKERS,—5, *ST. JAMES'S-STREET, PALL-MALL.* 23

MR. CREFT,—MINING SHARE DEALER, 24

No. 1, ROYAL EXCHANGE BUILDINGS.

MR. PEET, MINING AGENT, 48, Threadneedle-Street, is now prepared to OFFER his SERVICES in the FORMATION of MINING COMPANIES, on the Cost-book System; and also to CONDUCT the LONDON AGENCY of those already established. His offices are advantageously situated. Satisfactory references can be given.—London, April 5, 1851. 25

MINES.—MOLYNEUX & CO., MINING and GENERAL SHARE AGENTS, 34, THREADNEEDLE-STREET, 6, FINSBURY-PLACE SOUTH, and 6, WEST-STREET, FINSBURY-CIRCUS, have SHARES ON SALE in DIVIDEND-PAYING and OTHER MINES, which will ensure to CAPITALISTS the safest and most unexceptionable investment. 26

MOLYNEUX & CO., grateful for past favours, beg to call the attention of their friends to their newly-occupied OFFICES, No. 34, THREADNEEDLE-STREET, where every attention will be paid to the PURCHASE or SALE of SHARES.

*** Office hours from Ten to Four o'clock.

REGISTRY FOR THE SALE AND PURCHASE OF MINING SHARES.

DURRANT & CO., MINING SHAREBROKERS, 58, LOMBARD-STREET, LONDON, Beg to draw the attention of Capitalists to their REGISTRY for the SALE and PURCHASE of SHARES. 27

	Shares for Disposal.	
Devon Great Consols	Wheal Mary Ann	South Caradon
Carn Brea	Wellingtons	Great Wheal Sheba
West Caradon	West Buller	Trevlakey
Trelawny	Tolgus	Bedford United

N.B.—Statistical information furnished on British and Foreign Mines.—No Charge made for the registration of shares unless business be transacted.

AN OFFICER OF RANK, who proposes to retire from the Service, and Settle in one of the Colonies, is desirous of OBTAINING an AGENCY, having reference to MINING OPERATIONS, or the EXPLORATION OF ORES, and OTHER USEFUL MINERALS, in which he is much experienced.—Address "C. X." at the office of the *Mining Journal*, 26, Fleet-street, London. 28

TO CAPITALISTS.—TO BE LET, MINING SETTS, of great extent, on most liberal terms, from 5 to 10 miles west of the Llangannog Lead Works. Also, inexhaustible TRACTS of PEAT and BOG LANDS.—For particulars apply to H. Richardson, Esq., Aber Hirnant, Bala, North Wales. 29

TO BE LET, for any term of years the taker may desire, a SLATE QUARRY, at WELLTOWN, within a mile of the Harbour of Boscastle, now in the occupation of Mr. Avery, of Boscastle, the proprietor, to whom applications may be made.—Boscastle, May 19, 1851. 30

COPPER, LEAD, SULPHUR, AND IRON PYRITES.— TO BE LET, at a small Royalty, the MINES of DINNISNAVE, situated in the barony of ROSS, county of GALWAY, IRELAND.—Application to be made to Captain J. B. M. Blake, Doone House, Outerard, Ireland. The HOUSE and DOMAIN he will also LET, together with a large FARM, if required: it is beautifully situated on the banks of Lough Corrib, surrounded by plantations. 31

STEAM PUMPING ENGINE FOR SALE, at TRELAWNY MINE.—TO BE SOLD, BY TENDER, an excellent 22-inch cylinder ENGINE, complete, with a good BOILER.—Tenders for the above Engine and Boiler will be received by Mr. John Philp, the purser, Liskeard, on or before Monday, the 9th June next. Liskeard, May 26, 1851. 32

BRITISH ELECTRIC TELEGRAPH COMPANY. TENDER FOR WORKS.

TO CONTRACTORS FOR EARTHWORK, PIPE-LAYING, &c. 33

The BRITISH ELECTRIC TELEGRAPH COMPANY are desirous of RECEIVING TENDERS for the performance of their TRENCH WORK between LIVERPOOL and MANCHESTER.—Specifications may be seen on and after Thursday, the 19th inst., at the Central Offices of the Company, Royal Exchange, London, and at their Offices in Manchester and Liverpool.—London, June 6, 1851.

NAPHTHA, ASPHALTUM AND MACHINE OIL FOR SALE. —The BITUMINOUS SHALE COMPANY is prepared to RECEIVE TENDERS for the PURCHASE of THREE THOUSAND GALLONS of MINERAL NAPHTHA, 70 per cent. overproof; ONE THOUSAND GALLONS of RECTIFIED MINERAL NAPHTHA, 80 per cent. overproof; THREE THOUSAND GALLONS of ROUGH MINERAL NAPHTHA, 40 per cent. overproof.—As also ONE THOUSAND GALLONS of SHALE OIL, for fine machinery (warranted superior to any other oil or grease used for such purposes); TEN TONS of FINE ASPHALTUM (superior in colour to foreign). 34

Tenders to be addressed to the office, 145, Upper Thames-street, where also samples may be seen. ALGERNON POLLOCK, Secretary.

DIVIDEND MINES.—GEORGE CARNE, 28, THREAD-NEEDLE-STREET, CITY, has FOR SALE SHARES in YOUNG DIVIDEND MINES, which are paying 20 per cent. per annum. 35

ST. JOHN DEL REY MINING COMPANY.—Notice is hereby given, that the EIGHTEENTH HALF-YEARLY DIVIDEND, being £1 10s. per share, free of income tax, on the shares of this Company, will be PAYABLE at this Office on Tuesday next, the 10th inst., and every succeeding day, between the hours of Ten and Four. 36

Forms for claiming the dividend may be obtained at the Company's Office, and must be left three clear days for examination previous to payment.

8, Tokenhouse-yard, Lothbury, June 6, 1851. JOHN ROUTH, Managing Director.

GENERAL MINING COMPANY FOR IRELAND.— Notice is hereby given, that the HALF-YEARLY DIVIDEND of TEN PER CENT. on the paid-up capital of this Company will be PAID to the proprietors, at the Company's Offices, on and after the 3d inst., between the hours of Ten and Three o'clock. 37

2, Burgh-quay, Dublin, June 2, 1851. THOMAS MAGUIRE, Secretary.

THE AUSTRALIAN MINING COMPANY.—Notice is hereby given, that an EXTRAORDINARY GENERAL MEETING of the shareholders of this Company will be HELD at the Company's Offices, No. 1, Adelaide-place, London-bridge, in the city of London, on Saturday, the 14th day of June, 1851, at Twelve o'clock at noon precisely, for the purpose of electing three Directors of the Company, to supply the three existing vacancies in the Board of Directors. 38

May 29, 1851. By order of the board, (Signed) J. A. JOSEPH, Sec.

KINZIGTHAL MINING ASSOCIATION.—NOTICE OF CALL.—Notice is hereby given, that the DIRECTORS of the KINZIGTHAL MINING ASSOCIATION have this day made a CALL of TEN SHILLINGS (or Six Florins) per share, and have appointed the same to be PAID, on or before the 23d June, to their bankers—viz.: 39

In London .....Messrs. Masterman, Peters, and Co.
In Stutgard .....Messrs. Doertenbach and Co.

By the Statutes of the Association, interest, at the rate of 5 per cent. per annum, will be charged upon all sums in arrear after the 23d of June.

By order of the board, GEO. COPELAND CAPPER, Secretary.

CEFN GWYN SILVER-LEAD MINE.—NOTICE.— APPLICATIONS for the remaining SHARES of the NEW ISSUE in this Mine CANNOT BE RECEIVED after the 25th JUNE inst. JOHN BOWES, Secretary. 41, Threadneedle street, City. 40

OKEL TOR SILVER-LEAD MINE.—The Promoters of this Mine being desirous that it should be carried out in a legitimate and business-like manner, with the spirit of prudence and economy, have made ARRANGEMENTS with Mr. EVAN HOPKINS to FORWARD regular COPIES of the RECORDS of their PROCEEDINGS to his OFFICE, 13, Austinfriars, in order that this Gentleman may not only from periodical inspection, be able to judge of their progress, but be made acquainted also with their daily operations, for the satisfaction of distant capitalists who may consult him.

There are 400 shares remaining for disposal, applications for which must be made either to James Crofts, Esq., of 4, King-street, Cheapside, London; or of Mr. J. Jury, the secretary, 3, Castle-terrace, Exeter. 41

MINING INVESTMENT.—THOMAS FULLER AND CO., 51, THREADNEEDLE-STREET, LONDON, have on hand DEVON CONSOLS NORTH: this mine is situate and adjoining the celebrated Devon Great Consols Copper Mine, having the same stratum of ground, and running parallel with and having the same great cross-courses, and within a short distance of the present rich lode of these productive mines, which, with £1 paid, are now marketable at £310, and paying £48 per annum in dividends.—T. Fuller and Co. have also SHARES in Appledore Silver-Lead, Wheal Caradon Copper, Peter and Mary Tavy Consols, Wheal Franco, &c., and will take pleasure in furnishing all particulars connected therewith. 42

MR. R. TRIPP, MINING AGENT, has FOR SALE SHARES in most of the best DIVIDEND-PAYING MINES, and in OTHERS, English and Foreign, having present and prospective advantages, including Devon Consols, East Pool, Alfred Consols, Arthur, South and West Caradon, South Tolgus, Botallack, Treiawny, Mary Ann, Wheal Reeth, Bedford United, Tamar Consols, South and East Tamar, Wheal Ginnys, Crebor, Langford, Bodmin Consols, Bodmin Wheal Mary, Herodsfoot, Lamheroce, &c.

Mining Offices, St. Michael's Chambers, St. Michael's-alley, Cornhill, London. 43

MINING OFFICE,—3, GEORGE-YARD, LOMBARD- STREET.—Messrs. TREDINNICK & CO. (formerly of Three Kings-court and 52, Threadneedle-street, London) beg to inform their numerous Friends that they have RESUMED BUSINESS at the ABOVE ADDRESS, of PURCHASING and SELLING SHARES in MINES, RAILWAYS, and other PUBLIC COMPANIES, as well as the NEGOTIATION of every description of MONETARY MATTERS, together with COMMISSION BUSINESS in GENERAL. 44

THE MINING EXCHANGE, LONDON.—The popular pre-judice against mining property—that it could never be dealt in but at extreme prices, and at uncertain periods—is now removed by the establishment of an open market, into which recognised agents and dealers only are admitted, subject to the government of an authorised committee. The facilities afforded by this market render mining shares, of *bonâ fide* character, as convertible as railway and other first-class public securities. The influx of capital with which the mining market will now be strengthened will necessarily give a new tone and improved value to mining property generally. 45

The subscribers can, therefore, recommend it to their friends as a very desirable field for investment—most of the legitimate mines not only paying higher dividends than any other public securities, but with prospects more improving, and really attended with less risk, if only proper prudence is exercised in the selection of a judicious adventure.

The principle upon which the subscribers conduct their business is—they pledge themselves not to speculate on their own account, but to confine themselves exclusively to a legitimate commission agency; and their books will always be open to the inspection of their principals, that they may see the precise hour and the parties with whom their business had been transacted. In fact, all that can be required to establish implicit confidence between principal and agent is carried out in the system adopted by the undersigned, and to which they are determined to adhere.

The agency of country brokers undertaken upon liberal terms.

The tone of the market and prices current advised daily to regular correspondents.

JAMES S. TRIPP and CO.,

Lombard-street Chambers, No. 33, Clement's-lane, City.—Established 1830.

PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY.

The 21st half-yearly meeting of this company was held at their offices in Leadenhall-street, on Saturday—Sir J. MATHESON, Bart., M.P., in the chair.

The usual preliminaries having been gone through, Mr. HOWELL, the secretary, proceeded to read the following report:—

As has been intimated in former reports, the Deed of Settlement limits the production of accounts to the annual general meetings of proprietors, usually held in the month of December. The directors, however, are able to inform you that the financial state of the company continues to be satisfactory, and is such as to warrant their recommending a declaration of the usual half-yearly dividend of 4 per cent. for the six months ending 31st March last.

EXTENSION OF STEAM COMMUNICATION WITH INDIA, CHINA, &c.

In their last annual report the directors intimated their intention of opening a direct line of steam communication between Calcutta, Penang, Singapore, and Hong Kong; and have now to report, that from the arrangements they have made for that purpose, they have reason to believe that this branch of service has been commenced by the steam-ships *Erin* and *Lady Mary Wood*. Additional accommodation for passengers, parcels, and light goods having recently been called for, both by the Eastern Presidencies and Bombay, the directors have also made the following arrangements to meet these requirements. They have directed that one of the company's first-class steam-ships shall be dispatched every alternate month, commencing about the 20th August next, as an extra ship from Calcutta for Suez, calling at Madras, Ceylon, and Aden. In combination with these extra steam-ships from Calcutta, the company will dispatch from Bombay, about the 1st September next, and of every alternate month thereafter, a first-class steam-ship for Aden, to meet there the ship from Calcutta. At Aden the passengers, parcels, and goods from Bombay will be transferred to the Calcutta ship, and be conveyed to Suez. At Alexandria, one of the company's steam-ships will receive the passengers, parcels, and goods, and convey them to Southampton, calling at Malta and Gibraltar. In combination with the above arrangements, one of the company's large first-class steam-ships will be dispatched from Southampton on or about the 1st Sept., and of every alternate month thereafter, for Alexandria, touching at Gibraltar and Malta, for the conveyance of passengers, parcels, and goods to those places, and also, *viâ* Egypt, to Aden, Ceylon, Madras, Calcutta, Singapore, and China. But passengers, parcels, and goods for Bombay and Western India will be conveyed from Southampton in the mail steamers leaving that port on the 20th of the month, and in the corresponding vessels from Suez to Aden, at which latter port a steam-ship of the company will be in waiting to embark and convey them to Bombay. Although the directors can scarcely entertain an expectation that this extra communication can, of itself, for some time to come be remunerative yet as the plan they have adopted will, they consider, draw into it an important amount of traffic from Western India *viâ* Bombay, for which the expense only of a vessel plying between Bombay and Aden will be incurred, they trust this measure will not be attended by any considerable sacrifice to the company, while it can scarcely fail to give satisfaction to the public, and show the desire, as well as the ability, of the company to meet the wants of the intercourse as they may become developed.

INCREASED SPEED OF THE COMPANY'S VESSELS.

For a considerable time past your directors have devoted their anxious attention to the improvement in point of speed, as well as otherwise, of such of the company's vessels as were required to be laid up for repairs, and which were constructed prior to the discovery of various improvements in steam navigation, which experience has more recently developed. Their efforts have been successful—the *Hindostan*, *Oriental* and *Pottinger*, afford satisfactory instances of greatly increased speed. These vessels now steam, under favourable circumstances, at the rate of 13 nautical miles per hour; and during four consecutive voyages, from Suez to Calcutta, the *Hindostan* and *Oriental* (constructed about 10 years ago) averaged 10 nautical miles per hour, making the voyage in eight days less than the time stipulated in the mail contract. The directors intend to adopt a similar course with others of the large ships of the company, and they expect to meet with equal if not greater success; improvements are being now introduced into the *Benlinck*, at present undergoing a thorough repair, which will, it is expected, insure a rate of speed superior to both the former vessels. The directors also deem it right to advert to the fact, that in consequence of these improvements, which have been effected at a very great cost to the company, the mails from Calcutta are now, and have been for some time past, delivered in London, and most parts of the kingdom, so as to afford ample time for reply by the immediate outgoing packets; an acceleration of postal intercourse which was neither contemplated nor stipulated for at the time of making the contract. The two most recently constructed ships of the company, the *Singapore* and the *Ganges*, each of 1200 tons, and 500-horse power, have proved themselves not to be inferior to any ocean steam-ships of their size afloat. These vessels have steamed at the rate of 14 nautical miles per hour, under favourable circumstances, and their average speed may be calculated at 11 nautical miles per hour. The *Ganges* has this month made a voyage from Southampton to Malta, performing the whole distance, 2162 miles, in 187 hours, being at the rate of 11½ nautical miles per hour.

REVISION AND REDUCTION IN THE RATES OF PASSAGE.

The directors, some months since, made a revision and considerable reduction in the company's tariff of passage rates to and from India and China, particularly for separate cabins, as well as for ladies, children, and servants. This, it may be proper to observe, is the fourth reduction the company has made since the opening of their comprehensive plan of steam communication with the east; and the present rates for passengers are, taking all circumstances into account, actually lower than those of any other of the great ocean steam navigation companies.

ADOPTION OF AUXILIARY SCREW-PROPELLED VESSELS IN THE COMPANY'S SERVICE.

The progressive improvements which have been made in the propulsion of vessels by auxiliary steam-power, with screw-propellers, have for a long time past engaged the watchful attention of the directors; and, considering that the time had arrived when such vessels, with the most recent improvements, might with advantage be employed in certain branches of the company's operations, they contracted for, and have now under construction, two vessels of 1200 tons each, with screw-propellers, and engines of 300-horse power each, and one vessel of 1800 tons, and 400-horse power. They are also in treaty for a vessel for the north coast of China service, which will be very shortly ready for sea. In addition to these vessels, the directors had it in contemplation, as announced in their last report, to construct two paddle-wheel iron steam-ships, of about 2000 tons, and 800-horse power each, with which they had little doubt of conveying the India mails between Southampton and Alexandria in 11 days, or within one day of the time now occupied in transmitting that portion of the mail which is forwarded through France and *viâ* Marseilles, thus saving the public the heavy cost of that branch of the service. A recent intimation, however, of the Lords Commissioners of the Admiralty, that they entertained objections to the employment of iron vessels in the postal service, has induced the directors to suspend, for the present, the construction of these intended vessels, because they consider that wooden vessels cannot be constructed, of the dimensions required, to obtain such speed, with any due regard to strength, durability and safety.

INTENDED RESUMPTION OF THE NORTH COAST OF CHINA SERVICE.

The directors in their last report stated the circumstances under which they had felt themselves compelled to withdraw the *Lady Mary Wood* from the line of service between Hong Kong and Shanghae. Representations on the subject having been made by a numerous body of British merchants interested in the China trade, and also by your directors, to her Majesty's Secretary of State for Foreign Affairs, such instructions, it is believed, have been sent to the British Consul at Shanghae, as will prevent a repetition of such partial interference as led to the withdrawal of the *Lady Mary Wood*, and the directors forwarded, some time since, such instructions to the company's agent at Hong Kong as will have probably led to the resumption of this service by the company's steamer *Pacha*, which has been placed at his disposal for that purpose, and will be followed by the screw-propelled vessel before adverted to, in order to meet adequately the increased requirements of the north coast of China trade, expected to be created by the new branch of communication opened between Calcutta and Hong Kong. By the last mail from China, the directors are advised that, on an appeal lodged by the company's agent at Hong Kong in the Supreme Court there, the decision of the Consul at Shanghae, in the *Lady Mary Wood's* case, was reversed, and the fine imposed by him on the vessel ordered to be refunded.

TRANSIT IMPROVEMENTS AND INTENDED RAILWAY THROUGH EGYPT.

On this most important subject, the directors are enabled to confirm a report which has already obtained some currency through the public press—viz., that his Highness the Pacha of Egypt has determined to commence forthwith the construction of a railway through that country. They are able to state this on the authority of a letter from the Pacha himself, addressed to a director of this company, conveyed by Nubar Bey, a gentleman high in office, and in the confidence of his Highness. This gentleman has full powers from his Highness to contract for the material necessary for the construction of the railway. The work is to be under the direction of the eminent engineer, Mr. Stephenson, M.P., and is expected to be completed in about two years. In the meantime, the improvement of the present means of transit continues under his Highnesses auspices to progress rapidly. A new steam-packet, of spacious dimensions, replete with every accommodation, and affording sleeping-room for nearly 100 persons, has been lately dispatched to Egypt, and will form an important addition to the fleet of transit steamers plying on the Nile. This steamer, named the *Boulac*, has been constructed at Blackwall, at the Pacha's expense, but on the plan and under the superintendence of the directors of this company. The directors, indeed, continue to receive, from time to time, increasing proofs of the entire confidence and cordial good feeling with which his Highness regards this company, and the generous manner in which he has, since his accession to the government of Egypt, indentified himself with British interests, entitles him to the gratitude of this company and of the nation at large.

ACCIDENT TO THE "CANTON" STEAM VESSEL.

The only casualty in the company's fleet, of any importance, which the directors have to report since the last meeting, is the accidental running on an unknown sunken rock, on the coast of China, of the *Canton* iron steamer, which has been for some time past employed in local service there. The rock had penetrated, in a considerable mass, through the vessel's bottom, and at first but little hopes were entertained of saving her. By the last mail, however, the directors are informed, that after being exposed for about eight weeks to a sea which would have broken up a wooden vessel, the *Canton* had been got off, and brought to Hong Kong for repair. Her upper works and machinery had sustained no damage, and she will be repaired at a comparatively moderate expense. This circumstance adds another to the many instances on record of the superiority of iron over wooden vessels in similar situations. To replace temporarily the *Canton*, the company's agent had hired the steam-vessel, *Sir Charles Forbes*.

AUGMENTATION OF THE COMPANY'S FLEET IN THE INDIA AND CHINA SEAS.

In order to furnish the additional means for the extended communications in the India and China seas, the directors dispatched the company's new ship, the *Singapore*, for India, *viâ* the Cape of Good Hope, on the 18th of March last. When the vessel was on the point of departure from Southampton, the intelligence of the outbreak in Kaffraria reached this country, and the directors availed themselves of that opportunity of saving an expense of several thousands of pounds to the country, by placing the vessel at the disposal of the Government, free of hire, for the conveyance of troops to the Cape. A detachment of nearly 500 troops was embarked, and would be the first reinforcement to arrive at the Cape from England. The *Ganges*, a sister-vessel to the *Singapore*, will also be very shortly dispatched for service in India.

THE COMPANY'S FOURTH TENDER TO GOVERNMENT FOR ESTABLISHING STEAM COMMUNICATION WITH AUSTRALIA.

The proprietors are already acquainted with the three various proposals and tenders made by the company to the Government for the above object. An advertisement having been again issued in January last, inviting tenders for that service, the directors responded to it by an offer to establish and maintain a monthly line of steam postal communication between Singapore and Australia, on condition of receiving the amount of the postage of letters which might be conveyed on the line at the present rate. This fourth offer has also not been accepted, and the whole question of steam communication with India and Australia, &c., has been, as the proprietors are no doubt aware, referred to a committee of the House of Commons. Without venturing to anticipate the result of the investigation, the directors look upon the appointment of the committee as an advantageous circumstance for the interests of this company, inasmuch as it will enable them to put on record, in the shape of evidence before the committee, facts relative to the origin, progress, connection with the mail service, and management of the company, which cannot fail effectually to refute the various misapprehensions and misrepresentations which for some time past have been so industriously circulated to its prejudice. The directors have already partially availed themselves of this opportunity, and will do so more fully when the committee enter upon the Indian branch of the inquiry.

DEATH OF SIR JOHN PIRIE.

It is with feelings of deep sorrow that the directors have to advert to the loss which they have sustained in the removal, by death, of one of their most zealous and most useful colleagues, the late Sir John Pirie, Bart., deputy-chairman of the company. To his extensive commercial experience, superior talents, and active zeal for its interests, the company is deeply indebted.

The directors are not aware of any other points of importance to which it is necessary for them to advert on the present occasion; they will, therefore, merely state, in conclusion, that their anxious efforts will continue to be devoted to render this great enterprise conducive to the public advantage, by a prompt but judicious application of the extensive resources at their disposal, to meet every growing want of the intercourse in which it is engaged—to combine the greatest amount of comfort and economy in the passenger transit, consistent with a fair consideration of your interests—to maintain, by adopting in your ships such improvements as the advancing state of science may point out, that high character for the efficient performance of the postal services, which has been repeatedly acknowledged and testified to by her Majesty's Government. By such means the directors feel that you may look forward with confidence to its successful progress and permanent prosperity.

DIVIDEND.

The directors now recommend that a dividend of 4 per cent., clear of income tax, for the half-year, ending 31st March last, be declared, and be payable on and after the 23d proximo.

Dr. BEATTIE, in moving the adoption of the report, observed that the establishing a monthly communication from Bombay to Aden would be highly satisfactory; and he should have been happy if they could have brought Australia within a monthly sail of England, China, and India by placing two powerful steamers between Singapore and Sydney. He complained that much had been said about the insufficiency of their steamers, and their niggardly treatment of passengers. He denied both these allegations; they had gained four days over former years, and their vessels were now in a high state of excellence. As to the second complaint, it would be hard to make tea or coffee to please a hundred or more individuals; and certainly it would not do to supply claret for breakfast, which had been demanded by boys just escaped from school. He believed the reports to arise from a desire to create a feeling of discontent against the company to pave the way for another. There was every desire and every effort made to render the passengers as comfortable as possible.

In answer to a question from Mr. Lewin, Mr. A. ANDERSON, M.P., said the cause of the depreciation in the value of shares was the creation of 500,000*l.* of capital at par. In that issue a preference was given to holders of original shares; and as the new shares came out at considerable premium, the old shares increased in value, until the new shares were allotted; and this he thought very fairly represented the cause. Mr. Anderson then alluded to the New Indian and Australian Steam-Packet Company, now undergoing dissolution by the Winding-up Act. There was also the Eastern Steam-Packet Company; but he could not see how they could answer, as they only proposed to do certain services, already efficiently performed. They could command 2,000,000*l.* of capital, with which they could supply all India with steam-boat accommodation for the next 10 years at least. He also called attention to the state of Egypt only a few years since, when it was a wild desert, tenanted by hordes of wandering Arabs; and Mr. Salt was obliged to take a guard of 600 men when he went to visit one of the pyramids. The Pacha had identified himself with British interests by an expenditure of 100,000*l.* in providing additional steam-boats from Suez to Alexandria, in building hotels, securing better land-carriage, &c., and he was going to construct a railway; so that an Englishman could take his pale ale, his claret, or champagne, with as much comfort as at home, and could cross the country in 16 hours. The Peninsular and Oriental Company hardly knew the difficulties he had had to contend with. He had thrown aside the French *employés*, who had generally managed to get former Pachas under their control; and he thought it ought to go forth to the world that England would not let him be thwarted in his laudable designs. He, therefore, moved, "That the grateful acknowledgments of the proprietors of this company are due and ought to be given to his Highness the Pacha of Egypt for the very efficient protection which he continues to afford to the transit of passengers and property through that country, and for the active and liberal manner in which he has promoted, and continues to promote, the improvement of the great thoroughfare between the eastern and western worlds now established through the interesting country under his government. That a copy of this resolution be conveyed to his Highness in such manner as the directors may consider most appropriate." Mr. Anderson mentioned, as showing the perfect system of protection afforded by the route, the company had to send to India, a few months since, a million of specie. It was landed at Alexandria, passed to Suez, and thence to its destination in perfect safety.

The motion was unanimously carried; and thanks having been voted to the directors, to which the CHAIRMAN replied, the meeting separated.

BANK OF BRITISH NORTH AMERICA.

The annual meeting of this company was held at the bank, St. Helen's-place, Bishopsgate-street, on Tuesday, the 3d inst.

J. J. CUMMINS, Esq. (the chairman of the company), in the chair.

The advertisement convening the meeting having been read,

Mr. DE B. ATTWOOD (the secretary) read the report, which was as follows:

Although it is not in the power of the directors to present to this meeting accounts showing any large increase in the amount of undivided profits, yet it is very satisfactory to them to be able to state that the business of the bank has considerably increased since their annual report in June last, being the latter part of the year. They have reason to believe that this increase has arisen out of an improved state of trade in the colonies, especially in Canada West. The indications of this improvement were noticed in the last report, and it has continued steadily up to the date of the last advices. The portion of the bank's capital which was stated in previous reports to have accumulated in London and New York is now, consequently returning into more active and profitable employment at the branches.

The trade between the United States and British North America has largely increased, with every prospect of continued extension. The Canadian Legislature has adopted the wise policy of encouraging and assisting with pecuniary aid the formation of great trunk lines of railroad, to open up internal communications. There can be no doubt that every branch of commercial intercourse will be thereby facilitated and increased, and the general prosperity of the country essentially promoted. After a careful revision of the estimates of the value of securities held for outstanding debts of previous years, the directors have thought it necessary to make a large addition out of the profits of the year to the reserve hitherto set apart to cover these debts; they are, therefore, only able to declare the same rate of dividend as last year, and to make a small addition to the rest.

Balance-Sheet, Dec. 31, 1850.

LIABILITIES.

Capital	£1,000,000	0	0
Circulation	279,214	10	11
Deposits	357,617	1	5
Bills payable and other liabilities	484,445	7	0
Reserve for Christmas dividend	25,000	0	0
Undivided nett profit	59,542	10	3
Total	£2,205,819	9	7

ASSETS.

Specie and cash at bankers	£ 195,050	0	3
Bills receivable and other securities	1,961,611	9	0
Bank premises	49,758	0	4
Total	£2,205,819	9	7

Profit and Loss Account from Jan. 31 to Dec. 31, 1850.

Dividends declared as follows:—			
At Midsummer, 1850, payable July, 1850	£25,000		
At Christmas, 1850, payable January 1851	25,000—£50,000	0	0
Balance in hand, being undivided net profit to Dec. 31, 1850	59,542	10	3
Total	£109,542	10	3
Balance of undivided nett profit to Dec. 31, 1849	£58,359	10	9
Nett profit for the year 1850, after deduction of all current charges, and providing for bad and doubtful debts	51,182	19	6
Total	£109,542	10	3

The CHAIRMAN said—Gentlemen, I can well imagine that some disappointment may be felt by the proprietors present at the result of the accounts which we have laid before you; for I confess that I myself at one time anticipated a much greater amount of undivided profit. The cause, however, of the diminution has been stated in the report, and I shall again advert to it more fully. Notwithstanding this, however, I can with great truth say—and I know that I express also the opinion of the other directors—that I could not for many years past have looked at the accounts and the general position of the bank with more satisfaction or greater confidence than I do now. Those gentlemen present who have been connected with the Canadian trade well know the fluctuations which it has experienced for some years past, and more particularly within the last few years, during which the commercial policy of this country has undergone an important change. This change has doubtless affected the export trade in timber to the mother country—prices have fallen considerably; the value of shipping has also been reduced. (Hear.) This has also been felt in the trade of the St. Lawrence, and particularly in the province of New Brunswick. There has, however, on the other hand, sprung up a most important trade in almost all articles of produce between the interior of Canada and the United States; and now I may with confidence state that not only is the trade with the mother country recovering its vigour, but this new and, in my mind, most natural and important branch of Canadian commerce is likely, in conjunction with the rapidly-increasing internal trade, and the development of the great natural resources of the province, to compensate—and more than compensate—for any momentary check produced by the causes to which I have alluded. Certainly, as far as the business of the bank is concerned, I may say the depression has been more than counterbalanced. (Hear.) The report has mentioned that the directors, "After a careful revision of the estimates of the value of securities held for outstanding debts of previous years, have thought it necessary to make a large addition out of the profits of the year to the reserve hitherto set apart to cover these debts. Now, as these securities consisted of charges upon ships, mills, &c., given to the bank to secure the engagements of some parties who were dealing largely in the branches of trade which suffered most, it will at once be seen that in their realisation diminution would be likely to arise. This might have been met by a deduction of the amount required from the previous rest; but while this would have shown more satisfactorily the increased profits of the year, it would in reality have made no difference in the result. (Hear, hear.) The directors, therefore, preferred meeting the diminished estimate by setting apart the amount out of the profits of the year. I am bound also to state, that by the very unexpected failure of a house in New York, and the consequent overthrow of a certain house connected with Upper Canada, the bank sustained a loss of about 5000*l.* sterling, which the directors have wholly written off. (Hear.) Thus, then, we have now the satisfaction of looking at the state of our bank, with its million of capital paid up and secure, with a surplus over the year's dividend of nearly 60,000*l.*, with an active and increasing trade, and a reserve deemed to be sufficient to cover any doubtful debts, I think, gentlemen that, under such circumstances, I am justified in congratulating you on our position, and in expressing the confidence I feel that we may look forward to results still more encouraging. (Hear, hear.) The Chairman then moved the adoption of the report and accounts.—Capt. KELLY, R.N., seconded the motion.

A PROPRIETOR asked the amount that was appropriated to these bad debts.

The CHAIRMAN said about 13,000*l.*, including the 4000*l.* just referred to. The estimate of loss had grown to this amount by the great defalcation in the value of the securities (some of which had been since realised) placed in their hands several years ago, in the depreciation in ships more particularly.

A PROPRIETOR said they would have been 13,000*l.* richer had it not been for this circumstance, to which the chairman replied in the affirmative.

Capt. KELLY, R.N., observed that he was glad the debts had not come out of the business of this year, but from that of previous years, the weight of which had fallen on them in the present year. (Hear, hear.)

A PROPRIETOR asked if the present appearance of business was satisfactory?

The CHAIRMAN said it was, and was so stated in the directors' report. (Hear.)

The report was then adopted unanimously.

W. R. Chapman, Esq., J. J. Cummins, Esq., and Sir Andrew Pellatt Green, R.N., were re-elected directors unanimously.

Capt. KELLY, R.N., said they must bear in mind that if 13,000*l.* had been written off out of their profits of the year, they had still a reserve of 59,000*l.* beyond their capital. (Hear, hear.) He thought they were greatly indebted to the directors for placing them in that position, and he had, therefore, much pleasure in moving that the thanks of this meeting be given to the chairman and directors of the company.

Col. SANDYS seconded the motion, which was passed unanimously.

The meeting then separated.

GRAVESEND AND ROCHESTER RAILWAY AND CANAL COMPANY.

The final meeting, which was also the annual general one, of the shareholders in this company, was held at the office, New Broad-street, on Wednesday last.

JOHN MOXON, Esq., in the chair.

The SECRETARY (Mr. J. Collier) read the directors' report, which gave particulars of the various assets which had been collected for the purpose of making a final dividend, which the directors were of opinion might be with propriety estimated at about 9d. in 1*l.*, and would be payable at some date between September and the close of the present year. The entire dividends declared since 1846 will, therefore, be about 19s. 9d. in 1*l.*—The report and accounts were adopted unanimously, after which the following resolution was passed, appropriating to Mr. Moxon the sum of 500*l.*, in acknowledgment of his exertions in the management of the company's affairs for a series of years, and especially with regard to the sale and settlement of the affairs of the company:

That, in consideration of the continued exertions and sound judgment invariably applied to the winding-up the concerns of the Gravesend and Rochester Railway and Canal Company by the chairman of the directors, John Moxon, Esq., a sum of 500*l.* be presented to him as a small mark of the value the shareholders put upon his labours in the business.

The following resolution was also passed unanimously:—

That the cordial thanks of this meeting be, and the same are hereby, offered to the board of directors of the South-Eastern Railway Company, and especially to James M'Gregor, Esq., the chairman of the said board, in acknowledgment of the facilities afforded by them on all occasions in the negociations which have taken place between the companies previously to and since the sale of the property: and for the prompt attention and courtesy with which the representations of this company have on all occasions been received.

The meeting then separated.

[It ought also to be remarked, that the property of this company, consisting of the Thames and Medway Canal, originally incorporated in 1800, and of the Gravesend and Rochester Railway, which latter occupies the site of the canal, and was incorporated in 1845, passed into the hands of the South-Eastern Railway Company, in Sept., 1846, the purchase money having been 310,000*l.*]

THE EQUITABLE ASSURANCE COMPANY.—At the quarterly general court of this successful company, on Thursday, the accounts showed that the number of new assurances effected was 35, for an amount of 31,200*l.* The claims paid represented 86,800*l.*, and the bonuses ordered were to the extent of 109,910*l.* The amount of stock sold was 210,000*l.* Three per Cent. Reduced. It also appeared that the society had invested on mortgage 130,000*l.*, and for the redemption of policies and bonuses 16,514*l.*—leaving a cash balance at the bank of 39,479*l.* The actuary then made his annual report of the policies that had been admitted in the course of the past year, to make up the constantly participating number of 5000. The number admitted was 309, which included a policy dated in Jun, 1845, and he stated to the meeting that the amount of liabilities discharged in the course of the last year was upwards of 1,300,000*l.*, effected by an absorption of 422,000*l.* of the capital. The entire remaining liabilities on the 31st of December last amounted to 12,730,000*l.*, to meet which the society then possessed a present capital of 8,330,000*l.*, in addition to an income from the premiums of assured members of 235,000*l.* a year. In the course of the proceedings a member moved for a committee to investigate the affairs of the society, which, after some debate, was negatived by a large majority.

SUBMARINE TELEGRAPH COMPANY.

The experimentally-proved fact, of the possibility of communicating by electricity across the Channel between England and France, is now about being practically carried out on a scale commensurate with its importance, and by which a stoppage of the transit of information between the two countries will be amply provided against, and rendered next to impossible. It will be remembered that in August last an insulated wire of 25 miles in length was laid across the Channel between Dover and Cape Gris-nez, and communications printed by it were successfully accomplished; this wire was cut by some fishermen, and thus for a time the operations have been suspended. A company, however, is now formed, with a most influential directorate (among whose names we observe two of the directors of the Peninsular and Oriental Steam Navigation Company), and Mr. W. Cubitt, the president of the Institution of Civil Engineers, as consulting engineer, to carry out in its fullest integrity the concession granted to Mr. Jacob Brett by the French Government, for having the sole authority for 10 years of constructing electric telegraphs between the two countries. The plan once carried out, by the agency of a single wire the news by the Indian Mail, on its arrival at Trieste or Marseilles, may be delivered, *printed in Roman type*, simultaneously at Paris, London, and Liverpool, at which latter place it will be in readiness for the departure of the American mail; while other single wires will, at the same instant, be conveying intelligence between Great Britain and Belgium, Prussia, Austria, Russia, and the other continental states. The experimental wire laid down (and which was intended only as an experiment, to ascertain the practicability of isolating the wire) was but half an inch in diameter, including its gutta percha coating, and was calculated only to resist a strain of from 100 to 200 lbs., while those now to be constructed are intended to resist even the pull of a ship's anchor; but the experiment having perfectly succeeded, it is now proposed to vest the concession in a public company, for which a Royal Charter of Incorporation has been obtained: divided into 100,000 shares, of 1*l.* each. One quarter of these shares are to be appropriated to the concessionaries and patentees, in consideration of the privileges granted, and 50,000 only of the remainder will be issued in the first instance. It is fully expected this capital will be sufficient, but should it not, the Charter gives the power of raising a further sum, making the total 200,000*l.* Once established, there is no doubt, like railways, steam, and gas, it will become in a political, social, and commercial view a national necessity; while those who embark their capital, will be amply rewarded for the enterprise evinced in its construction.

MINERALS FROM CLONMORE, IRELAND.—In the Great Exhibition may be observed some specimens of minerals from the estate of T. Phillips, Esq., of Clonmore, County Mayo; while in the same class are similar deposits from the adjoining estate of Viscount Dillon, the whole mineral district being rich in them, and showing the industrial resources of this part of Ireland. They are exhibited by the Royal Dublin Society, and consist of—1, clay ironstone; 2, clay iron ore once fluxed; 3, bog iron ore; 4, a sample of iron made in a coppersmith's forge with turf, from clay ironstone; 5, coal from an 8-inch vein; and 6, coal from a 4-ft. vein. In 1847 Capt. William Griffith, a mining engineer of considerable experience in Ireland and South Wales, estimated the coal on the estate at 100,000*l.* Mr Matthias Dunn, of Newcastle-upon-Tyne, has since inspected it, and does not think the coal would reach that sum, but that the iron ore would. Its produce, as analysed by Prof. Sullivan, gives nearly 50 per cent. of pure iron; it consists of the above ores spread near the surface over an extent of several hundred acres; and should the coal fail, there are 3000 acres of peat on the estate. The property is now for sale under the Encumbered Estates' Act.

Original Correspondence.

DISCOVERY OF AN ENGLISH BURRA BURRA IN THE TAVISTOCK DISTRICT.

SIR,—It appears that copper has been so abundant in the Tavistock district, that our forefathers put it to the test in the shape of a gate-post,—there having lately been discovered about two miles east of Tavistock, and about half a mile from the granite hills of Dartmoor, a gate-post composed of the grey oxide of copper. The stone is a rare specimen of this kind of ore; it has withstood the pelting hail of Dartmoor, and to submit it to a further test, it has been put into the fire, where it was found to be composed of the right sort of stuff.

The discovery was made by Mr. Michael Whitburn (late an old tributer), who, passing near, fancied he could "smell copper," when his attention was drawn to the very post. He immediately got a sample tested, which proved to be very rich for copper. Since then several samples have been assayed by Mr. Harvey and Mr. Gulley to satisfy the unbelievers, which have yielded upwards of 30 per cent. for fine copper.

Since this discovery, the attention of Mr. Whitburn and Mr. White (the only two gentlemen interested) has been drawn to the whereabouts this stone came from, which they soon discovered, by finding in the hedges several similar stones; and by putting down a few shode pits they found a perfect bed of gossan, the fissures of which are filled up with the green oxide of copper. Stones, where copper has not been perceptible to the eye, have yielded 5 per cent. of fine copper in the gossan. There are two cross-courses traversing the sett near the spot, which, from their character and bearing, are considered to be the Great Wheal Friendship cross-courses, being about two miles and a half to the south of that rich old mine.

They have commenced sinking a shaft, which is down about 3 fms., and nothing but gossan of a beautiful kind can be seen. The country around is a kind of soapy killas. You can stand on the shaft, and see the Devon Great Consols Wheal Emma, which is bearing just exactly west from their shaft; and I have but little doubt that it is the Devon Great Consols champion lode come in contact with this extraordinary great cross-course, which has thrown up these great rocks of ore on the surface.

The attention of miners has been called to this spot before, but the copper being of a different character from any seen in the neighbourhood, it has been condemned for iron, and I believe that thousands of pounds are annually thrown away by persons trusting too much to the eye. Had the parties who first saw this advanced but 2s. 6d. for an assay, I believe it would have been the means of making their fortune. The post, I should say, is worthy of a place in the Crystal Palace. It has an iron ring, to which the gate was fastened, run in with lead, and the hole for the reception of this was bored in beautiful grey copper. The post is about ½ ton in weight, and I think would yield 5 cwts. of copper ore, that will produce 20 per cent. There have been several names already given to the concern—viz.: English Burra Burra, Devon Great Consols. East California, Wheal Gatepost, &c., but the latter, I think, should be adopted Tavistock will not finish with the Devon Great Consols; there are many great things yet to be shown forth in the district.—A MINER: *June* 3.

MINING DIVIDENDS AND CALLS.

SIR,—You have now furnished your readers with the full particulars of the dividends made during the last three months, and, as far as you are enabled, the amount of calls—viz.:

Dividends during March	£32,954 10 0	Calls during March	£27,905 0 0
" " April	11,488 16 0	" " April	16,565 0 0
" " May	26,552 0 0	" " May	34,802 2 0
	£70,995 6 0		£79,272 2 0

Devon Great Consols paid 16,384*l.*; Wheal Buller, 5760*l.*; South Frances, 3968*l.*; East Wheal Rose, 3840*l.*; and many others paid dividends from four months' profits, not three, and yet the amount of calls *exceed* the former by 11¼ per cent. On looking over both lists, I observe another very important fact—viz.: that out of the 21 dividend-paying mines, 15 are held by a comparatively few shareholders, who mostly pocket the bi-monthly dividends. Many of them know little or nothing of the mines upon the call-list, except by occasionally seeing their names in your Journal; at all events, very little of their money finds its way into that channel: 17 out of the 21 are wholly governed upon the spot, upon the Cost-book System of bi-monthly meetings of the shareholders—some of them having the assistance of a local unpaid committee. In all other respects they are under the control of practical agents, who have succeeded in bringing them to their present enviable position without foreign aid. To them, then, only—the local residents, agents, committee, and shareholders—be all the merit awarded, as it is justly due.

Then look at the 41 mines in your list of calls. Out of that number I can only select 13 (the nine first, and four others), which, if noblemen, gentlemen, and capitalists, who might wish to invest their capital in mines, were to ask my opinion, I should say—"Beware! send down to a practical miner resident in the locality, or, through some friend or banker, cause it to be done; and you will then be likely to have a true and faithful character of the spec." Were this system invariably followed, mining would be weeded of many incorrigible schemes working in the market, solely for the benefit of the concoctors. The prospectuses alone of some of these would at once condemn them in the eye of the legitimate and steady adventurer, who needs not this caution. If this brief summary, deduced from facts, saves any one from being made a victim, it will serve the intended purport of this letter from—

June 3. ARGUS (of Truro.)

TINCROFT MINING COMPANY.

SIR,—Seeing a letter in the Journal from Capt. Paull, respecting the meeting of Tincroft shareholders, I beg to forward a letter written him on the subject, if you think proper to have the same inserted in your next Journal.

Hatton-garden, May 22. P. N. JOHNSON.

CAPT. WM. PAULL,—I cannot say I was surprised to see your letter to the Editor of the *Mining Journal*, as I was myself surprised to see the manner in which my observations at the meeting had been interpreted, and should have observed upon it before, but from having been confined with severe illness for the last 12 days. It was never my intention to injure yourself or any others by my observations, but to state that the mine was poor when you left, and I believe I made use of the term "wretchedly" poor. This morning a gentlemen called upon me who is largely interested with the mine, although not in the direction, when I asked him his impression of what I stated, which exactly agreed with what I have stated, and what was my intention. I consider it due to you to say that I believe you did all you could for the interest of the mine while you had the chief agency, but you must be aware that the greatest part of the ore discovered has been made by the new work recommended by Capt. Puckey, and since you left, and chiefly in consequence of the dues having been given up by the owner of the ground for 12 months. I must also correct your observation in regard to new machinery, &c., which has been added since you left to the amount of more than 5000*l.*, to say nothing of several thousands in dead work. Had the director you allude to been present at the meeting, he might have stated any orders he had given respecting stopping any bargain that would not pay its own costs, &c. I can only say, these were no orders of mine, either at the mine or at any board meeting; my experience in mining affairs has always proved the necessity of leaving the executive part of the operations to those immediately in charge, and I am sure you will give me credit for never interfering in such, further than my suggestions for working, and these suggestions more generally as regards the returning or dressing the ores. My object with the Tincroft Mine, as with all others in which I am interested, has been to render it a lasting concern, and to have it worked in a legitimate miner-like manner, without anticipating profits, and leaving sufficient available capital to meet any unforeseen expenses or variation of ground. In regard to any correspondence you allude to, I should wish any published, feeling that none from myself can be shown but what will bear out the observations I have made; and feel that the investigation of the affairs of the undertaking as proposed at the meeting will, if any blame is due to others, not effect—P. N. JOHNSON: *Hatton-garden, May* 20.

P.S.—I beg you will feel free to publish or make what use you think proper of this letter.

[Some delay has arisen in the appearance of this letter: it having been acknowledged and commented upon by Capt. Paull in the Journal of the 24th May, we considered its publication would not have been required; but as such is even now thought desirable, we readily give it insertion.]

WHEAL ZION—LEGITIMATE MINING.

SIR,—A communication in last Saturday's Journal, headed "Legitimate Mining and Wheal Zion," contains an unwarrantable suspicion of my veracity, an unjustifiable misrepresentation of my statements, and a groundless insinuation of my fear of scrutiny and inquiry.

Being a plain and practical man, I make no pretensions to fine writing about the "orbs of celestial worlds," the great mammoth of Nature, "her veins and her heart's blood for ages," which may be intelligible to your more refined readers, but is entirely beyond my humble comprehension. Neither can I indulge in the fiction of "nodules of granite coming up, acting as a hot-bed, and new lodes appearing just as mushrooms do on a misty morning; in fact, becoming all lodes." This may be very sublime, but it appears to me very ridiculous; at all events, I would not barter my character for honesty, integrity, and truthfulness, if by so doing I could realize the magic power which your correspondent attempts to pourtray.

I invite the investigation of all parties interested in Wheal Zion, or desiring to become so. A gentleman came to the mine last week, a shareholder and a perfect stranger to me, though evidently no stranger to Cornish mines. He spent two days in minutely investigating Wheal Zion, examined the great champion lode, and took away with him about 28 lbs. of samples of ore producing 23¾ per cent. of copper. He obtained the unpaid opinions of several neighbouring captains, closely questioned the miners, and determined, it appeared, to discover something wrong in the mine, or in me. After leaving the mine, he stated that he considered it a genuine, first-rate concern, and was pleased to express his entire confidence in my honesty and plain dealing. Nor have I any objection to satisfy the curiosity of uninterested inquirers, if by so doing my time is not improperly occupied, unless their inquiries are accompanied by expressed doubts of the truth of my statements; in which case I think that I am justified in minding my own business, and leaving the inquirers to mind theirs.

I have never said, or implied, that Wheal Zion would, in six months, keep up a supply to the extent of the Devon Great Consols, or would bring to surface a thousand tons of copper in the month of November next. I know too much of mining to speak, or to write, or even to dream, such nonsense; but I have said, and I repeat it, that I believe Wheal Zion may, with an outlay of from 1000*l.* to 2000*l.*, become a great dividend-paying mine—that in all my experience I *never* met with lodes so promising at the same depth from the surface; and that its present appearances justify the expectation that Wheal Zion will become as productive as the celebrated Devon Great Consols.

I assert, too, that everything contained in my report, and in the prospectus grounded upon that report, is strictly true; and every day convinces me that the Wheal Zion adventurers have made an investment that will yield them speedy, long, and large returns. SAMUEL VIVIAN.

Gunnis Lake, near Tavistock, June 4.

STANAGWYN MINE.

SIR,—It seems my communication of the 15th May has excited the anger of Capt. Puckey. He has to thank the officiousness of your Fowey corrrespondent that his name was introduced at all in connection with Stanagwyn. It is to Capt. Puckey's credit that he has, by industry and good conduct, raised himself from the buddle boy, at 2d. a day, to the honourable situation of manager of the Fowey and Par Consols Mines. But though his perseverance and fortune have placed him in such a position, without the advantages of a scientific education, it is rather too much to expect in the year 1851 that your readers will concur with him in the "idea," that education at a mining school, theoretical and scientific, is of no advantage to a mining agent, or that the practical routine of mining labour is all that should qualify an agent to direct the operations and expenditure of the most important mines. I am sorry to find Capt. Puckey so far behind the age in estimating the advantages of education; but as I equally despair of inducing him to alter his opinion on education, or on "the quantity and quality of the copper ores" at Stanagwyn, I will proceed to notice the other topics he dwells upon. It is a pity we are not always truthful, and more the pity, recommending it to others, that we do not always practice it ourselves. Capt. Puckey, in his narrative of former operations at the mine, may have told the truth, but why not "the whole truth." He says he "carefully worked the mine, and sold several tons both of copper and tin." He would lead us to infer he had sold copper ores from the deep adit end, where apparently an inexhaustible supply may still be seen around the excavation. We are told by those who worked for him in the mine at the time that he sold but one parcel of copper ore, which was wholly raised from another lode at a place within the sett, called "Piper's Bottoms," to which his observations of the hardness of the ground, and the low quality of the copper ore, may possibly apply. He adds he lost 800*l.*, but omits to say he worked the mine six or seven years to incur that loss, and that his operations were entirely confined to the *tinny* part of the great lode, except the small parcel of copper ore from "Piper's Bottoms." He tells us of others who worked it half a century ago at a loss, but omits to add that they, too, disregarded the copper, and worked only for *tin*, and that their loss may well have arisen from the shafts they sunk, and the adit they drove at great expense, and unnecessarily, for 130 fms, through the solid granite, to reach the great lode, though that passes nearly parallel to the adit, and within 20 fms. of it throughout its course to the adit mouth. We care not whether he or they are to take the credit for the copper ore discarded, and now visible in the hedges, and the attle piles within and without the excavation; but he does not tell us that, during the seven years he himself worked the mine, he ever caused this "white mundic attle," or, as we term it, "copper ores," to be assayed. Perhaps your readers may think an agent with a little less of practical prejudice, and a little more of professional education, would not have been satisfied to think so abundant a mineral was "white mundic," without testing it himself, or submitting it to the assay of others. The crucible is a better test than opinion, even than the opinion of the manager of Fowey and Par Consols. Your readers will regard the one, whilst facts compel them to disregard the other. But would it not have been the more honourable and manly course, when this discovery was noised about, to have called at the mine, taken samples of what our assayers call copper ores from the attle piles, the hedges, and the great lode, and to have tested their contents before insinuating charges of untruthfulness against those who have addressed you on the subject of Stanagwyn? At present your readers have, on the one side, the opinion, I grant it the very confident opinion, of Capt. Puckey, who relies solely on the recollections of what he saw 10 years ago, who, though he seems to feel as if his mining credit and reputation were at stake upon the question, yet has not ventured to go on the spot, and see for himself if our statements are true or false; whilst, on the other side, they have the testimony of all, including personal friends of Capt. Puckey, who have recently inspected the mine. Of the numerous assays taken at Truro, St. Austell, Redruth, and of the rocks of copper ore, which speak for themselves, in the hedges, on the floors, and in the excavation in the adit end, surely the weight of evidence is against Capt. Puckey's opinion, and unbiassed readers will be guided by the facts before them rather than by his angry arguments. The present adventurers do not pretend to be possessed of any "superior judgment," but they are not self-opinionated: guided by the result of the very numerous assays, they are now dressing a parcel of copper ores to be wholly taken from the discarded attle on the floors, in the hedges, &c.; and I may add that, judging from an assay taken to-day at Truro, they have every reason to believe the parcel will produce above 3*l.* per ton, and be brought into market for less than 10s. per ton expense—a result somewhat different from expending three guineas to extract the worth of one. Until this sale takes place we can offer no further proof of our statements, nor expect to overcome Capt. Puckey's prejudices; but we court the publicity of an examination of the mine by all who feel at all interested in the result. The random shot levelled at the parties who originally made the discovery, at whom Capt. Puckey professes great indignation that they should have profited by the sale of any of their shares, misses its aim, and loses its effect, when the simple facts are told that not one of them has individually volunteered to sell a share—that in every instance the purchaser has been the unsolicited applicant, and, as may be seen on reference to the cost-book, that of the 1024 shares 958 are still held by the parties, whose names are in the original share-list. The adventurers regret they cannot avail themselves of Capt. Puckey's invitation to pay him for an inspection of the mine; for if he does not feel that his own credit requires him to see it, they would fear to test his impartiality by paying for his report.

Truro, May 28. TRURONENSIS.

THE NATURAL PHENOMENA OF METALLIC VEINS.

SIR,—However much disposed I might feel at the present time to accept the recommendation of "Verax," not to interfere with the ideas of others, I fear it would prove altogether unavailing, a habit of upwards of 20 years not being easily got rid of; nor is it necessary I should do so, since it is evident I can interfere only with ideas that have been made public, and have, therefore, become public property, to be dealt with, in honourable discussion, as others may think fit. I am an old traveller in search of truth, and if on my road I find any obstructions calculated to interrupt my progress, if I can I will set them aside, lest they should prove impediments to those who might otherwise feel disposed to follow in my track. Your correspondent has justly observed that I have no idea, practically, of the nature of mineral veins: my occupation is that of a clerk in the Ordnance Department; but, nevertheless, if my correspondence should produce in the minds of others the belief that my services, practically applied, would be of any avail in throwing light on this "inviting but puzzling question," and I can turn that opinion to account, in obtaining at the hands of Government that inquiry into my principles I have so long sought, but which has been, so unjustly to myself and injuriously to the public, withheld, "Verax" may rest assured I shall not allow the opportunity to escape me.

The opinion I have hitherto hazarded has been general; and it being based upon principles deduced from well-established facts, unless the principles themselves can be shaken, I shall continue to hold that opinion, which, in fact, forms part of a chain, the links of which I am now connecting from the beginning *to the end*: and as I proceed in the enquiry I hope to be able to render evident the direct bearing which the facts I shall bring under notice have on those already discussed, it being clear that if a general law be once established, the details, as applicable to the several branches of science, will speak for themselves; and as Mr. Holdsworth has done me the honour of referring to my deductions, I will endeavour to apply my oxygen period to a practical illustration of the two examples he has so graphically described, and I think it will appear that effects, apparently the same result, from different causes.

Mr. Holdsworth draws a comparision between the crystalline appearance of a lode and a mountain, and observes, "the only rational inference which I can imagine can be deduced from the phenomena, is simply that crystalline forces operating in a line of what we now term a lode, and producing, in the first instance, the merest fractures in the rocky structure, continued their expansive action, most gradually, but, as we often see in confined freezing water, most irresistibly, till their destined forces were fulfilled, and the then, perhaps, subaqueous lode became much, if not wholly, what we now behold it." Now, these *crystalline forces* are assumed to have been in operation before the formation of the lode, and I am, therefore, rather at a loss to understand why they should operate in veins, the more especially as those veins are seldom, if ever, in a direct line with the atmosphere; and if the operation resulted from the freezing of water, my perplexity is increased, by the fact that metallic veins are found in temperatures infinitely above the freezing point. It is true that, coincident with my oxygen atmosphere, the geologist has traced a glacial period, during which cracks may have been formed at a slight depth in the earth's crust, and these cracks may have been subsequently filled with water; but then how came these cracks filled with matter of the nature in which we find it—that of a metal in combination with a base? Here are difficulties, none of which present themselves to the theory I have proposed, but which "Practical Miner" says *he will* "pick to pieces." The heated metal having been drawn up by electrical attraction, filled the cracks made by the uplifting action, and during its cooling, and *contraction* on crystallisation, separated from the less tenacious rocks a portion of their substance. Mount Calvo, however, at the period referred to was in a position immediately the reverse of a mine; its whole surface was exposed to the oxygen or glacial influence; those portions now constituting its rocks were partially formed, and probably contained much moisture, which, by the operation of "freezing," would naturally shiver them into a multitude of pieces. Of the character of these rocks we are not informed, but in all probability their creation may be referred to the oxygen period, which, like the other atmospheric conditions, extended over ages, or millions of years, and, although active, was but slow in its operations on the earth's surface.

By striking a flint with a steel, by rubbing together two pieces of wood, or on the application of a little friction to certain compounds, we are enabled to produce what is termed fire, or to bring into action a principle in Nature, which likewise becomes manifest during spontaneous combustion; and if any reliance is to be placed on the representations of burning mountains, these frequently exhibit a luminous mass from the foot to the summit. I recollect reading many years since, in *Silliman's Journal*, an account given by some travellers in the southern regions, in which it is stated that in the morning, while walking over the crust of a crater, they observed through the cracks a luminous appearance a short distance beneath, and much admired the mass of *native sulphur* that lined the inner sides; at night, however, being desirous before retiring to rest of taking another peep at the spot they had left only a few hours, to observe what was its appearance in the dark, to their surprise and horror they found it—

"Double, double, toil and trouble,
Fire burn and cauldron bubble."

I shall have occasion, however, to return to this principle in Nature as I progress in "Atmospheric Influences;" and as I hold "Practical Miner" to the promise that he will pick my principles to pieces, I am free to confess that the only grounds on which I arrived at the conclusion that he was more used to the pen than the pick, was the able manner in which he wielded the former.

I will endeavour to satisfy next week the curiosity of "R. C." (Birmingham), and have no doubt of my being able to convince him that my remark of the "poles" of the galvanic battery being changed, is no less true than strange.

FRANKLIN COXWORTHY
Canterbury-place, Lambeth-road, June 2. Author of *Electrical Condition*.

THE "NEW SCHOOL" *v.* THE OLD.

SIR,—In answer to your regular correspondent, Mr. Coxworthy, I am only surprised at some of his *ideas*. Seeing he has a wish to obtain practical knowledge, I am not inclined to quarrel, and would gladly spend a month to accompany him through the mines of Devon and Cornwall; when I think I should have an opportunity to convince him, from *practical facts*, as to the correctness of many of my theoretical views; if not, I would endeavour to battle it out with him afterwards, for the decision of the public. N. ENNOR.

Wiveliscombe, Somerset, June 3.

ON MINERAL LODES AND THE ADJOINING ROCK.

SIR,—I am glad to see Friend Paull's letter in your Journal of the 24th May—my former being so long out of date, that I had almost forgotten the subject; but there is something so very interesting in his last that I am bound to notice it, and particularly the first part. He appears to have taken my hint, and is turning his attention to more useful things than Druid tales; and I think he will shortly adhere to the closing words of his letter, and even forget St. Perian. He chides me as making a considerable blunder in using the term "new school," but he will recollect it was not assumed. A certain party choose to dub all those that do not fall in with Druid tales and old traditions of "where it is, there it is," as men of the new school, and has placed me on the list. Still it is congratulating to see that Friend Paull has become a convert, and is standing forth, boldly telling his practical brethren that there is a light appearing in the horizon, and requesting them to study the great book of Nature, as he cannot but believe that a brighter day is coming. Such language as this from an old practical man cannot be otherwise than convincing to the theorist and the world at large, that even the practicals, up to this period, have been labouring on the dark side of the hedge; then why chide me, Friend Paull, for attempting to draw your attention to this admitted glimpse of light? Turning to his remarks on the absence of any necessity for an enormous fire in the centre of the earth, it is a second proof that he is turning over to our school; it coincides with my opinion. We well know the trifling increase of temperature found in deepening our mines is no proof to authenticate such a belief. His remarks on Wheal Maria are still a further proof that the practical miner was labouring in the dark in the operations in question—Nature being variable in the same stratum I admit, and also of one mine being found rich and another poor; but there is nothing out of place in this. Let Friend Paull take any two adjoining mines he knows of—one having been productive, and the other unproductive, the component parts of the strata being the same, and minutely examine them. He will find the lode in the productive mine to have met the strata at a different angle from what it did in the unproductive one, or there have been some different intersections of lodes, or a something that has caused the drainage of the stratum to act for a greater length on gaseous matters passing up through the lode. It is now becoming very fashionable in prospectuses to show off a great number of lodes in their setts, but I openly contend that the more parallel lodes near each other the worse they are; they only rob their neighbours, as but one of them seldom make ore to any extent; even the beast of the field show that three cannot be fed to perfection on the food of one. There may be found a certain few exceptions where there are masses of intersecting lodes within the reach of man, such as is the case about Redruth and on the west for miles, at Fowey Consols, and a few other places I could mention, but these act as conductors of food to each other. With his remarks, stating that very much more depends on the lode itself, I disagree; it is not applicable to the new school. Will Friend Paull show me what he grounds this opinion on? I ask if he admits the gradual increase of ore in lodes, or was it formed there when the world was commanded to take its place among the planetary orbs? If he admits an increase has taken place, I then ask him if he believes it has come to perfection? If so, will a decrease again take place, or does it remain stationary when once formed, as a memorial till the end of time? I will suppose he admits an increase of ore has taken place in a certain lode, then I ask from what, and under what circumstances? I will also ask, what in Nature he can point out that is growing, and going on progressively increasing its size, that feeds on nothing? But a lode is quoted as dependent on itself. Can it be possible it is agreeable to the law of Nature? I can see but two sources that it can derive its support from. First, supposing it is connected with the heart of the earth, or the great laboratory of Nature, which is sending forth her spontaneous combinations through her veins. What this may be is as yet beyond my comprehension, and I await the brighter dawn of day the more scientific attempt to name, and even pretend to identify each particular part. Secondly, if the lode is not connected, or even rooted, to some deep interior source, it must be dependent on the rock it is embedded in, and particularly so if all lodes die out as a wedge in depth, as some theorists are inclined to believe. The strata that lodes are embedded in have certainly a great effect on them. As a proof, let even the youngest theorist, on visiting a mine, notice its component parts, and see how the ore varies in kind, quality, and quantity, when passing into an adjoining change of rock. Is not this agreeable with the laws of the animal and vegetable kingdom, whose growth and prosperity is dependent on the congeniality of its food and soil?

I contend it is absurd for men—let their education be what it may—to attempt to argue that lodes are not dependent in some degree on the adjoining rock—it is their food; and but few men that ever travelled 100 miles in the bowels of the earth will attempt to do so, as they would first have to prove that the law of lodes was based on a different principle from anything else in nature, and that practice and science is useless. As far as regards their indicative value, his next or last remarks are very interesting, although not new to me—it is a view I laid before a public man two years since; it is his hint on *animal, vegetable,* and *metalliferous* life. This, if even not of his own originating, is worth all the Druid tales he ever wrote. A thousand arguments might be adduced in proof of it. My foregoing remarks are chiefly grounded on this theory; and I think friend Paul will agree with me when I say it is my belief that lodes, and even strata, are *living* in their *kind*, and are rich in ore only for a season; and that *ore* once in a lode—long since departed—has taken its place in others. This I think I should have no difficulty in proving—that lodes were once rich and are now *comparatively poor*. Were all lodes to continue accumulating ores, and it remained in them, there must be a great increase in quantity. In such a case, some theorist may kindly tell us what in the earth's formation is becoming copper. I believe these changes are taking place in the earth from chemical combination, produced from both the lode and strata.

As to the origin of lodes, I have never given an opinion further than opposed their *originating* from convulsive cracks. In conclusion, I beg to say paper wars are only distant shots, and seldom very effective, when interesting questions arise. My motto is, I will venture my time and expenses to meet any man in the kingdom, on any particular spot, to endeavour to throw further light on Nature's interesting laws. N. ENNOR.

Wiveliscombe, Somerset, June 3.

THE ORIGIN OF ORE IN LODES.

SIR,—Mr. Ennor denies having had any elementary controversy with Mr. Rowlandson. Now, I take the fact from his letter of 18th Jan. last, respecting the Pentire Glaze lead, wherein are these words:—"Mr. Rowlandson states that the contents of the lode were, at the time of upheaval, *heated to fusion*, in which state the ore ran into its present position, filling all the crevices in the slate, which is certainly a beautiful idea, but it brings something with it that I cannot swallow; and Vulcan must have been near to pull out the plug. What process has it gone through, so as to return it to the large flake blue sulphuret ore of lead?" &c.

Mr. Hopkins then very correctly tells them on the 20th—"The formation of sulphuret of lead, with a matrix containing upwards of 15 per cent. of *water*, chemically combined from igneous erruptions, and other imaginary natural

convulsions, is an idea not only irreconcileable with our present knowledge, but not admissable." Then comes Mr. Rowlandson on the 23d—"Carbonate of lead *was* formed, and is forming, from the sulphuret by the agency of *water*."

Now, if Vulcan and Neptune are not here defined clearly enough to inculcate the notion of two elements—fire and water—I am in error; but Mr. Ennor goes further. He ascends in his own peculiar lofty style of ideas, flying from the earth right through the regions of air, till he reaches what he terms "the mountains of the moon," which he would as soon refer to "as to a pupil of the igneous school;" so that, I take it, he dealt with four elements in place of two, as hinted.

I can by no means admit the justice of his hastily calling Mr. W. Forster's treatise, mentioned in mine of the 1st inst., "a fabulous tale," or the question I put "paltry." I expected better than this from Mr. Ennor; probably he was in a hurry to go to dinner or to bed, and so thought best quickly to dispose of it. He is equally silent as to when the mining world is to be favoured with a perusal of his long-promised papers. Why is, this inquires—

Truro, May 31. ARGUS (of Truro)?

P.S. This is a good opportunity of inquiring what has become of all the lead mentioned.

PENZANCE CONSOLS.

SIR,—No account of this mine has been rendered since October, last year, and no meeting has been held since December; this being the case, I addressed a letter to Mr. Thomas Carthew, the purser, more than five weeks since, enquiring the position and prospects of the mine, to which letter he has not thought proper to reply—a deficiency, I conceive, both in duty and courtesy. Would you, therefore, favour me and other adventurers with your opinion upon the above, for it is to your Journal we must look for redress in circumstances of this kind. In the Journal for April 26, in the "Notices to Correspondents," you have a complaint from an adventurer, of which no notice, as I can learn, has been taken.—AN ADVENTURER: *Kentish Town, June* 6.

COMPANY OF COPPER MINERS IN ENGLAND.

SIR,—You, as well as many others, will be surprised that the bill for the amendment of this company has passed the Committee of the House of Commons. None were, I believe, more astonished than the deputy-governor and the chairman of the Shareholders' Committee at their success, and they were as much at a loss to guess on what account the preamble of the present bill was declared proved, as they were at the last year's being thrown out. The matter, however, does not rest here, and such evidence will be brought forward in the House of Lords as probably will induce the chairman to follow the example of his noble predecessor, by giving a just decision at the hearing, and not influencing causes by his preliminary opinions.

June 3. A DEBENTURE-HOLDER.

THE ASTURIAN MINING COMPANY.

SIR,—When I first proposed to myself to ask you to allow me to reply in your Journal to a correspondent in your last Number, who signs himself "Alfred de Morat," I had given his letter but a hasty perusal; and it is only since I have begun to write that I have discovered the difficulty of extracting from the enigmatical language, and the misappropriate figures of speech by which his allegory is mystified, any clear and definite idea of what he really means to say. Can it be this—that his father (the Baron de Morat) is the person who was the fortunate passenger who reached the land by swimming, but with the loss of his luggage? Why, then, instead of observing his self-imposed *inviolable contract*, he deserts the sinking vessel, and, crying out *sauve qui peut*, leaves his fellow-passengers to their fate. But, now, let us consider the only reality which is easily discovered—I mean those letters or papers stated to be in the possession of the Baron. Well, considering the many years during which the Asturian Mining Company, under one or other of its different titles, has, reptile-like, "dragged its slow length along," and seeing also the varying phases, bad or indifferent, never good, which it has undergone, the Baron must really be most fastidious and difficult of choice, if none of these occasions could dispose him to produce either himself or his papers, and, by so doing, render to the sinking company those valuable services which he assumes to be in his power, and which all parties would have welcomed as a God-send. May I be permitted to glance (if only as in a dream) at, as I should hope, an impossible solution of the Baron's delicate hesitation on this point; and to ask, without pressing for a reply, enigmatical or otherwise, if certain operations—perhaps originated by others, but involving the Baron's participation—are so intimately woven into, and mixed up in these papers, with other less objectionable matter, that the web which they form cannot be disentangled; so that those which might be admired for their integrity must remain in seclusion, on account of the very equivocal propriety of others?

In alluding to the present governing body, your correspondent, unintentionally, perhaps, omitting Mr. W. (who is one of the triumvirate), is pleased to compliment Mr. A. and Mr. G. on their intelligence. This quality will be readily accorded them, even by those who have enjoyed more frequent opportunities of admiring their varied talents than Mr. Alfred de Morat. Comparisons are declared to be odious, but, with all due respect, I may venture an opinion, that want of intelligence is not exactly the weak point of some of the other directors; at all events, not of those chosen few who have achieved for themselves, by perseverance and dexterity, as directors of the Royal North of Spain, the Madrid and Valencia Railways, and the Nister Dale Mining Company, a well-earned, indisputable, and undying reputation; and which they will long retain, strange to say, without exciting either jealousy or envy.

GHOST OF A DROWNED PASSENGER.

Bottom of the Sea, North of the Wreck of "Les trois Filoux," June 4.

THE "PRACTICAL" A "MODEL CAPTAIN."

SIR,—This correspondent is a strange compound of error and conceit. He not only insists that he is *the* model "practical" and "no mistake," but that he astonishes "the natives of the far west" with his mining eruditions. His vanity is carrying away his judgment, until he appears like a jackdaw on the back of an elephant, who imagines that he "*picks* him to pieces." This self-sufficiency, with frequent ambiguous mining phraseology, embellished with poetical effusions, forms the sum and substance of the "Practical." His shadow has contaminated the shade of "Argus," until he found the "granitic pill" a bolus not so easily swallowed; but yet—

"He gnaw'd his pen, then dash'd it to the ground,
Sinking from thought to thought, a vast profound!
Plunged for his sense, but found no bottom there,
Yet wrote and flounder'd on, in dubious mire.

"Next o'er his notes his eyes began to roll,
In pleasing memory of all he learnt and stole;
How here he sipp'd, how here he plunder'd snug,
And suck'd all o'er, like an industrious bug.

"No crab more active in a zig-zag dance,
Than he to climb, and backward to advance,
He brings up mud, like clouds upon his head,
And thus his trash in ink gets widely spread."

His letters and papers in mining display mere superficial extension, somewhat like "a riddle"—possessing no depth. If he continues long at such "a railroad speed," he will doubtless "go-a-head," and be alone, if not in the field, at least in the columns of the *Mining Journal*. After contorting facts, and declining to confess his errors regarding the isolated masses of ores in Cornwall and Devon, he shows his entire ignorance of the deposits of Staffordshire, North Wales, and Cumberland. In Wheal Vyvyan he says—"It is true that the ore was intersected in all directions by granite veins of various width." The "Practical" is in error,—it was the *strings of ore that intersected the granite veins*, and not the granite veins the ore. He is equally wrong regarding Wheal Music. Your correspondent should go and work at Carclaze and the china-clay pits of St. Austell, not on *owner's* account, but as a tributer; he will then find tin, not only in the innumerable small fractures of the schorl-granite, but also in a state of dissemination with crystals of schorl in many of the granitic bands of the district. The carbonas of St. Ives are found *surrounded* by granite, in the same manner as large masses of lead ore and calamine are found in the centre of the metalliferous limestone. The "Practical" fancies that "the nodules are not of this country, but chiefly confined to Tuscany." This shows that either he does not know the meaning of the term nodule, or has little acquaintance with "British mining." Nodules of lead are extremely common in England, Wales, and Ireland. Had this "Practical" been a faithful prodigy of Dame Nature, he would have possessed a little more knowledge in these matters, and would have found out, ere this, facts not yet dreamt of in his philosophy. I think he is a prodigal son, and as I have no desire to be his tutor, he had better return to the bosom of Nature, and receive instruction in her school. But I fear—

"Nature's working laws are only held to scorn.
See all in self, and but for self be born:
Wrapp'd up in self, a sage without a thought,
Regardless of real merit, or his default."

The intelligent and worthy proprietor of the Virtuous Lady Mine will be amused by the following declaration of this practical model captain. "It is a mistake that the masses of ore in the Virtuous Lady is an instance of ore without a lode: the ore made in a vein or slide which may fairly be designated a lode." This is a specimen of his knowledge of mining. The ores in the Virtuous Lady have been, and still are, found in isolated flat oblong masses, principally under the river. And these masses are surrounded by crystalline spar, quartz, and carbonate of iron, and are inclosed in the rock south of the slide at many fathoms distance; the slides themselves are comparatively unproductive, and have no connection with the ores of the larger masses. I would recommend your correspondent to make himself more acquainted with such matters before he enters into the arena of discussion with men of real practical knowledge, and who are able to substantiate all the instances brought forward, if required, from direct observation. The following on the copper found in the serpentine of the Lizard (specimens may be seen at the Exhibition) is worthy of the "Practical:"—"The presence of copper in such a situation serves in no way to assist, but the reverse: it is a riddle which, like some others, they are not likely soon to solve." Such logic requires repetition—viz.: the presence of metal or ore, enclosed in a rock in the absence of any vein, is no proof that they are there without a vein, but the reverse! Perhaps he has never seen *vughs* with ore in cross-cutting in the country. The last batch from the pen of this mining oracle shows that he has taken a hint, not only as regards the meaning of stratified rocks and granite, but several other points which your mining readers will, doubtless, appreciate. "We practicals (says your correspondent) simply ask—What is the stratum—granite or killas?" In another place, all he requires is to see the lode not the "stratum;" but finding it difficult at all times to see the former, he borrows the common phraseology, applies it incorrectly, examines, if not with the head and pick, at least by means of leaves and pen, and finds his "congenial stratum." Why not ask what is the character of the rock? Stratum is only applicable to a bed of the stratified series, and if he is not learned in these distinctions the term rock will serve all practical purposes, and avoid ambiguity. "Verax" begs leave to repeat again, that schistose rocks are not productive of copper *lodes*. Nevertheless, large quantities of isolated masses of copper ore of rich quality are expected from quarry-like workings in North Wales and many other districts.

Your correspondent states that he is "in the habit of judging of the probable value of lodes from the indications of the lodes themselves, without reference to the surrounding circumstances;" and then contradicts himself by the following assertions:—"In a clay-slate, for instance, where the strata is vertical, or nearly so, I never reckon upon *anything of value*, because there is no precedent." The best and richest lodes of silver ores in Norway, Sweden, Freyberg, and South America are enclosed in the vertical structure of gneiss and micaceous slate; and the silver-lead ore of Prussia, and many of those of our own, are similarly situated. After the announcement of this loose theoretical nonsense, vulgarly called twaddle, we are informed that he will "by-and-bye discuss more at large the nature and properties of strata so much counted upon." We have a specimen of such a knowledge wherein he alludes to "magnesia." In reply to Capt. Ennor, he says—"I am free to confess that I attach so little importance to the direction or declination of the strata, that I am not prepared to give that of Crinnis." He shows that he never was a "tributer," but probably a "kitter." The former requires too much practical experience by head and pick, but the latter the sweet labour of collecting from others. I regret to observe so much attle and so few prills in his samplings. He distorts facts to suit a jumble of ideas of his own, and thus renders his collected contributions ambiguous, absurd, and presumptuous. You will find the qualifications of this *ne plus ultra* captain in his last; and as such a rich specimen is unique and too precious to be lost, I would recommend putting him in a glass case in the Great Exhibition as "The Model Captain of '51."—VERAX: *June* 4.

THE MINING EXCHANGE.

SIR,—As I anticipated, my remarks in your Journal of last Saturday have called forth a most bilious reply from "Mr. Looker-On," in nowise differing from its predecessor, save and except in exhibiting a greater lack of common sense on the part of the writer, and in being interlarded with a host of hackneyed phrases, evidently intended to show the learning of my antagonist; but, alack! (as honest Sam Johnson would have said) "only giving proofs of a marvellous want of it, Sir." It is not my intention to prolong this discussion; I will only trouble you with a few valedictory remarks, and then retire to my habitation in "Grub street."

In his last letter, I can still perceive evidence of a lamentable want of judgment and courtesy, but not one particle of argument or reason. If "Mr. Looker-On" is still of opinion that the Mining Exchange is incompetent to meet the requirements of the mining world, *why* does he not suggest the necessary improvements to make it competent? Why, instead of calling attention to defects, does he not submit a more perfect system? Is his mind incapable of a useful idea? Is that fluent (?) wit, so strong in acrimony and abuse, powerless and ineffective in the cause of truth and utility? I fear, Mr. Editor, like too many of the would-be censors of this generation, Mr. "Looker On" has more assumptive ignorance than sound sense; and passionately fond of seeing the effusions of his miserable soul in print, will persist in his scribbling, though, as he says, he gets "doubly damned for it." He indulges in a little mirthful recreation at the voluntary position I have assumed as the champion of the Mining Exchange Committee. Mr. Editor, that position *is* voluntarily assumed. I boast of it; and such a position I never did, and never will, hesitate to take to defend the intentions and character of honourable persons from the calumnious statements of such men as "A Looker On." When such as he, incapable of one honest sentiment, one generous idea, are abroad abusing the good services of respectable men, it is time for "Cato" to take the field, and "heavy metal," as I am, the "light," *very* "light" *mediocre* artillery of Mr. "Looker On" will never dislodge me from an honest, unprejudiced, and candid position.

One word more, and I dismiss Mr. "Looker On," henceforth to revel as he will in his low wit and acrimonious humour. He boasts of being an old man. For shame, Sir; for shame: and can you, in the winter of your years, thus unblushingly parade your ignorance and abusive nature before the public? Better, Sir, were your time spent in labouring to mount the stairs to those regions you so woefully disdain, than in afflicting the Editor with the insertion of your lucubrations, and your friends with the pain of perusing them. To your dotage the amusement may be gratifying; but consider your years, and the lamentable proofs such effusions give of a judgment possessing the feebleness of age, a garrulity without common courtesy, and the climax to your ambition will be a universal indignation at your follies, without one expression of sympathy.

And who is "Mediator," to whom my "empty incubration" was so unsatisfactory? Really, Mr. Editor, it requires no unsteady nerve to wield one's goose-quill whilst so many foes are in the field. Let me dispatch "Mediator" at once; a few lines will suffice. He thinks that I *am* a member of the Exchange, and for all I *am not*, nor have I any desire to become one, if the members are all "Mediators," vain enough to imagine their wretched skill in literary tournay sufficient to sustain a tilt against the merest schoolboy. Doubtless, Mr. Editor, "Mediator," as he says, "is quite strong enough to defend himself *in his own way*;" but I remember, when sparring with the late and much lamented Deaf Burke, thinking, in all my "Mediator"-like youthful vanity, I could easily plant a "one-two" upon the valourous professor, too big with my own skill, I lost my guard, and received a homely knock-down blow for my assumption, and which, the then champion of the ring informed me, "would teach me to be less confident in futur." Let Mr. "Mediator" bear this in mind when he relies too much upon his own imperfect skill.

In conclusion, Mr. Editor, my object in troubling you with my former letter was to defend the character of gentlemen from the malicious insinuations of an unknown scribbler. The Mining Exchange Committee is composed of men of probity and honour, and though "A Looker On" *now* disavows all intention to impugn their respectability, his former letter was palpably intended to convey a doubt of it. What else can we infer from such a remark as this? "Will he say that they are sufficiently strong in *moral* and *intellectual* standing to take the lead in such a movement?" Let the Mining Exchange Committee persevere in their labours; they may incur the displeasure of some, whose venom would prove their highest praise. They may give offence to the petty jobbers in shares, whose "pulls" will be sorely checked; but they will ensure protection to the public, respectability to mining, and honour to themselves. The system is barely yet in work. Let them closely observe its operations, remedy defects when they discover themselves, and act with caution and impartiality to all. The rage of disappointment may then vent itself in all its frothy nothingness on their character and conduct in vain; their honour will be proof to invidious attacks of the "rejected," and the miserable effusions of no less miserable scribblers.—CATO: *June* 5.

Mining Correspondence.

BRITISH MINES.

ALFRED CONSOLS.—There is no change to notice in the lode in Field's engine-shaft sinking under the 80 fms. level. The lode in the winze under that level, east of shaft, is worth for copper ore 40*l.* per fm. The lode in the 80 east is 5 ft. wide, 3 ft. of the south part is worth for copper ore about 50*l.* per fm. The lode in No. 3 winze sinking under the 70 is 4 ft. wide, nearly all solid copper ore, worth 80*l.* per fm. This winze is 12 fms. east of No. 2 winze. There is no other change of importance to notice since last report.

APPLEDORE.—On the 30th May I called at this mine, and am happy to inform you that everything is progressing favourably. We have good ground in the shaft, and the water moderate, so that I think we may, with the assistance of a whim, be enabled to sink to a depth of 20 fms. before the engine is erected. The smiths' shop and counting-house are progressing favourably; the wheels will be up by the end of next week, by which time the plans and specifications will be ready. I hope to issue the notices for tenders next week for the engine-house, boiler, &c.

BAT HOLES.—We have cleared out the old bottoms on Wood lode, and find it varies in size from 2½ to 4 ft. wide, mixed with soft spar and lead ore; for 12 fms. long there is rich work for lead ore—say about 1 ton per fm. We have taken the men out of the 48 on Cornish's lode, and put them to drive north in the 48 cross-cut, which will be about 7 feet above the bottom, having no convenient means to keep the water below this point until the engine-shaft is sunk deeper; the price for driving is 3*l.* per fm., and 2*l.* per ton for lead ores; this level will leave 7 fms. of backs, and will work on a moderate tribute. In the south end of ground the lode is about 3 ft. wide, chiefly spar and some lead ore, but not rich; we recommend this end to be driven with all possible dispatch, in order to lay the mine fairly open, as it is all in whole ground going south from the 27 to the 48 fm. level. If this object, with the sinking of the engine-shaft, should be carried out, we believe a brighter day will soon dawn upon us, and bring the mine into a profitable state of working.

BEDFORD UNITED.—The lode in the 115 fm. level, east of engine-shaft, is 18 in. wide, composed of spar, mundic, and spots of ore. In this level, west of Andrew's winze, the lode is 3 feet wide, producing good stones of ore; east the lode is 3 feet wide, yielding a little saving work. In the 103 east the lode is 4 ft. wide, worth 4 to 5 tons per fm. The lode in the 47 fm. level east is 18 in. wide, producing stones of ore. We weighed at Morwellham, on Friday last, March ores, 145 tons 13 cwts. 2 qrs., and sampled April ores, computed 73 and 69 tons.

BLACK BURN (ALSTON).—In the low level we have cut a weak string 1½ fms. back, the same bearing as the cross vein, with no perceptible throw or lode; since leaving it the beds have dipped faster, no mundic has been seen, and the lime is mixed with quartz; there is now 6 feet of lime in the forehead. In the high level there are 12 fms. of open cutting, and 7 fms. of close level, driven this last month. At 9 fms. we cut a cross vein 3 ft. wide, with 2 ft. throw, west side down, underlaying to the west, which had a quantity of surface water in it when first cut, and contains a reddish soily donk. The level is going on the Till bed with 18 in. of plate in the bottom part of the forehead, the rest being grey beds.

BLACK CRAIG.—The 25 back stopes are at present poor, and are set to three pares of tributers, at 95*s.*, 100*s.*, and 110*s.* per ton. We have 28 men employed in stoping the rider part of the vein below the 25, the quality of this part continues much the same as it has been for some time past. We have not yet done anything deeper than the old workings on the north part of the vein. We intend to bring down the stopes on the rider part, to the south, to the same depth before we sink deeper. The sinking of the engine-shaft is going on satisfactorily, and the 10 fms. contracted for is likely to be accomplished in the time specified.

BODMIN MOOR CONSOLS.—Our engine shaft is 14 fms. from surface, and we have driven a cross-cut 10 fms., for the purpose of intercepting the lode; in driving this cross-cut we cut, 4 fms. from the shaft, a kindly lode, 2½ ft. wide, composed of blue capel, and carrying tin in the capels; it underlays 2 ft. in a fm., and will intercept the lode we have in the shaft at 19 fms. under our present level. We have a lode in the end of our cross-cut, but are not yet through it, consequently I cannot report its size; we have a good leader of tin in it, which underlays north towards our shaft. In consequence of the rise of the hill, we have cut this lode at a depth of 16 fms. from surface; the tinny part of it is good saving work. It is my opinion our main lode is further to hill, and we shall have to drive about 7 fms. further before we intercept the same. We are raising good stones of tin from our old shaft, better than which I have never seen, and are sending them to the stamps, which are working well, and we are clearing a good batch for our market. Our large wheel works well, and keeps the water easy. Price of driving cross-cut, 2*l.* 10*s.* per fm.; for sinking shaft, 6*l.*—ground easy. We have brought up a cross-cut from the river, and gone through the lode, which we cut in the lobby of the wheel-pit; this lode is 7 ft. wide, and of a promising character. This makes the sixth lode discovered in this sett. We shall have to commence a new engine-shaft in the lower part of the ground, for the purpose of working our two lower lodes, and I have no doubt but we shall shortly make large returns of tin.

BODMIN WHEAL MARY CONSOLS.—In the 20 fm. level, No. 6 lode, east is 2½ ft. wide, with good stones of ore, and west much as last reported; No. 3 lode, in this level east, is 2 feet wide—favourable ground, producing ore in some parts of the lode, and west it is 2½ feet wide, with no regular branch of ore. In the 10 fm. level west, No. 1 lode is 3 ft. wide, and improved; in a few fathoms more driving we shall be under the course of ore going down in Spargoe's drift. In the winze sinking on No. 3 lode, from the 10 fm. level, the lode is 2 feet wide, saving stuff. Some of the pitches are not looking so well as last reported; but as we have commenced to clear the old level westward, we shall be dressing ore from that part of the mine in a day or two; and we may expect this work will greatly assist our raisings of ore for the month. The ore sold last week was much depreciated in quality by the quantity of jack in No. 1 lode; the jack, however, decreases as we get down, and the ore we are now dressing will be of a higher produce. The ground in the shaft continues of the same favourable nature, and we are sinking the same as usual.

BRYN-ARIAN.—The 20 fm. level, driving west from the engine-shaft, is communicated to the winze sunk down from the 10 fm. level; the lode is large, and at present yielding 1 ton of ore per fm. The lode in the 10 fm. level west is 5 ft. wide, composed of killas, gossan, spar, and spotted with lead ore. The stopes in the bottom of the deep adit level west are much the same as last reported, yielding about 10 cwts. of ore per fm. The lode in Hallett's shaft is still disordered by a cross measure of ground; we shall be down to the 20 fm. level in this shaft by the 7th inst., when we shall set the 20 to drive on the course of the lode. We are now shipping the ore, and shall finish this evening (the 3d inst.) 25 tons. The bills of lading shall be sent you by to-morrow's post.

BUTTERDON.—The engine-shaft is sunk 2 fms. below the 30, ground moderate. In the south end the lode is 2½ ft. wide, interspersed throughout with lead, and in the bottom of the end it will pay for working. In the north end the lode is 2 ft. wide, composed principally of soft spar. We have not yet met with the east and west course.

CALLINGTON.—The lode in the diagonal shaft, sinking below the 125 fm. level, is 20 in. wide, composed of spar, prian, and stones of lead, a very kindly lode. The lode in the 125 fm. level south is 12 in. wide, producing 5 cwts. of lead per fm.; the lode in the north end, in this level, is 2 ft. wide, producing 6 cwts. of lead per fm.; the lode in the same level, north from the south shaft, is 18 in. wide, composed of spar, white iron, and stones of lead, laying open tribute ground. The lode in the 112 fm. level south is 10 in. wide, producing 3 cwts. of lead per fm. The 70 fm. level south is for the present suspended. The lode in the winze sinking below the 112 fm. level is 14 in. wide, producing stones of lead; we hope this winze will be down by the time the 125 end is forth to ventilate and open tribute ground. Johnson's lode, in the 125 fm. level cast, is 2 ft. wide, composed of mundic, spar, blende, and stones of copper ore. The lode in the 50 fm. level east is 2½ ft. wide, producing stones of ore and a great deal of mundic. The lode in the rise over the 70 fm. level, at Kelly Bray, is 4 ft. wide, composed of spar, mundic, and worth about 2 tons of ore per fathom—up between 8 and 9 fms. from the back of the level. The lode in the stopes in the western end of the rise will produce 5 tons of ore per fathom.

CARADON WOOD.—The engine-shaft, 10 feet by 6 feet, is set at 35*s.* per fm. I much like the appearance of the north and south lodes and the country through which they run.

CYFANNEDD FAWR.—We have reached the junction in the western driving; the ground has improved, and appears favourable for the carrying of ore. There is no alteration to notice in the sinking. The mine has been inspected by Mr. Adam Murray, jun., and I now await the hearing from him before I set for this month.

DEVON CONSOLS NORTH.—Having nearly completed our costeaning, we are now commencing other operations, and are cutting down and timbering Morris's shaft on the north lode, which looks very encouraging; indeed, I may report a considerable improvement. On the south lode four men are employed to clear up, and drive on the lode at a point where the old adventurers were stopped on meeting with a horse of killas, which had split the lode.

DOLFRWYNOG.—We continue the driving of the Fownog level; there is a little copper occasionally. The driving to cut the Gauddr Goch lode is without any change to notice since my last report. The mine has been inspected by Mr. A. Murray, jun., and I now await the hearing from him before I sett for this month.

EAST BALLESWIDDEN.—We have stopped back the water, and now we are preparing a cistern to fix our lift in, and clear up our engine-shaft under the 5 fm. level. In cutting ground for the cistern we broke several sacks of good tinstuff from the walls of the lode left there by the former workers, and a kindlier appearance for making tin in depth than I have ever seen. We are still sinking the flat lode shaft, by six men and three boys, going down all in attle; the shaft down 10 fms. from surface. The four men in the adit end, on the flat lode, are still going on well at 10*s.* in *l.* for driving the end and stoping the backs.

EAST BIRCH TOR.—We are still driving and stoping the backs, and I am very glad to inform you that all the underground operations throughout this mine are progressing very favourably.

EAST CROWNDALE.—We put the Crowndale engine to work on the 27th May, and are now in fork to the back of the 47 fm. level; with much difficulty and risk we have saved the plunger lift, but we are now on the safe side. We find difficulty in getting men equal to such places, it being so very wet, and men are scarce generally in our district. At Rix Hill I am sorry to say that there is no improvement; it appears very clear that in the eastern end we are in a confused piece of ground. We have about 8 fms. to get under where we had the tin in the 40.

EAST SHARP TOR.—Hitchins's engine-shaft is now 32 fms. below the surface, the ground in which, I am glad to say, is a little improved for sinking since last reported on.

EAST WHEAL GEORGE.—Yesterday (May 30) being our usual monthly setting, we let the following bargains:—The 28 fm. level, east of engine-shaft, to six men, at 3*l.* per fm.—lode large and spotted with ore, kindly but not rich; the same level, west of shaft, is let to six men, at 2*l.* 10*s.* per fm.—lode composed of capel, spar, peach, and ore, but not in quantity enough to save; the back of the same level, east of shaft, is let to stope to two men, at 30*s.* per fm.—lode worth 5*l.* per fm. The winze in the bottom of the 12 fm. level, west of shaft, is let to six men, at 3*l.* per fm.—lode 2 ft. wide, producing 8*l.* worth of ore per fm.; this winze is about 3 fms. to the west of the one we first commenced sinking, and was prevented from doing so, the water being very quick. We have again resumed the driving of the 12 fm. level, east of shaft, let to two men at 4*l.* per fm. The stopes in the back of the 12 fm. west are suspended. I find in examining the shaft on the south lode that there is still water in it; consequently, we must wait a little longer before sinking it deeper. I cannot recommend the stoping the back of the 12 fm. level east at present, before we have stamping power. We shall endeavour to sample a little of grey and yellow ore together, as taken from the 23 fm. level, but the parcel will be small. I am glad to say that we have still the water under command.

EAST WHEAL RUSSELL.—Hitchins's shaft is made good to the depth of 17 fms. 2 ft. under adit: we have driven 9 ft., and have a beautiful white killas. We have commenced sinking on the lode, which is looking splendid, showing every indication for a great and good mine when we get under the gossan. We laid the foundation stone of our new engine-house on Monday last.

ESGAIR LLEE.—Our setting day was last Saturday. The deep adit, east of Morgan's winze, to four men, 4 fms., or the month, at 4*l.* per fm.; the lode is looking a little more promising than in my last, and producing a little ore, not sufficient to value. The winze sinking below the 12, east of Morgan's, to open ground for stoping, and for ventilation; by four men, 4 fms., or the month, at 4*l.* 15*s.* per fm. To stope in the back of the deep adit, east of Morgan's winze, by four men, 6 fms., or the month, at 3*l.* per fm., the lode yielding about 8 or 10 cwts. of ore per fm. The stope in the back of the same, west of ditto, to four men, 8 fms., or the month, at 2*l.* 15*s.* per fm., lode yielding 6 or 8 cwts. of ore per fm. To stope in the back of same, east of Owen's winze, to four men, 8 fms., or the month, at 3*l.* per fm., the lode yielding 10 to 12 cwts. of ore per fm. To stope in the back of the 12, west of Morgan's winze, to four men, 8 fms., or the month, at 2*l.* 10*s.* per fm., lode yielding about 8 cwts. per fm. We expect to finish cutting down the engine shaft from surface to the deep adit by the end of the month. As soon as we can procure a vessel we shall ship the 20 tons of ore sold to Walker, Parker and Co., on the 29th May, at 9*l.* 15*s.* per ton.

GARREG.—Since commencing operations at this mine the adit level north has been cleared and driven about 30 fms.; the level south has been cleared and driven upwards of 60 fms., and communicated with the old mine, which is not drained to that level; by doing this I have been enabled to set pitches both in the back and bottom, where there are now eight men working at an average of 5*s.* 6*d.* in the 1*l.*; the lode in the pitch in the bottom of the level has produced some good work, and is at present worth 20*l.* per fm., and still improving in depth: this lode throughout is large, varying from 6 to 15 ft. wide, and of a highly promising character, presenting every indication desirable for making great deposits of lead in depth. From the excavations visible above the adit a level there remains no doubt great quantities of lead being got from this lode, even at very shallow depth, the surface having run in several places where the lode has been removed. We have now commenced unwatering the mine below the adit 3 fms., below which there is a level driven south of the engine-shaft, and said to be the most promising part of the mine: I had hoped to have unwatered this level in time, that I might give you some account of it before the meeting, but the excavations below the level, and only the whim to draw the water, it, consequently, sinks but very slow (about 2 feet in 24 hours); but I trust in a short time to see this level, when, I have no doubt, from the indications which are pointed out at surface, to find the lode as good as it is represented to be. However, it is quite evident but little can be done, and that at extra expense, towards effectually working this mine without erecting a small steam-engine. It being now the time of year when the most work can be done for the same expense, I would recommend a suitable one to be got for that purpose with as little delay as possible. Our future object then would be to drive the level south to intersect the east and west lodes, where, I have no doubt, at and about the intersections, we should meet with such deposits of lead as would soon remunerate the shareholders for their outlay.

GREAT POLGOOTH.—In giving our first general report, you will, no doubt, expect a detail of our proceedings, with the prospects and objects we have in view. The 96 east of Clark's, under the slide, we have suspended, in order to rise at that point to cut the lode going down under the 84 fm. level. The 96 east, on south lode, has improved, and is now producing some tin. The cross-cut in this level, east of Taylor's, to cut the north lode, is in favourable ground. The cross-cut in the 110 is progressing, and though the ground is rather harder than was expected, it is still favourable for tin. We have in the past week discovered a lode in the bottom of the 84, about 6 fms. west of Clark's, which has a promising appearance; it is about 1½ ft. wide, good for tin, and is, as we suppose, the same lode now working on further east. In the back of the 84 east we have cut through the flat side, and have a branch containing good tinstuff, which we consider will lead to the main lode. The 84 east and west continues in size and productiveness. The winze under the 84 is not quite so large, but rich for tin. The 80 west

from Rag's is driving to cut the intersection of Boskellen with St. Martin's lodes, which we consider favourable for the production of tin. The lode in the 40 at Boskellen is large and kindly, but at present poor for tin. The 76, on copper branch, at Williams's, we have set on tribute at 8s. 6d. in 1l. The 66, west of Bunnyé, on St. Martin's lode, is cleared about 20 fms., and is still in progress. This has already opened ground which is now working on tribute, and we expect to lay open some considerable quantity in this level. The 40 cross-cut is driving south from Coade's to intersect new Gland's lode, where we expect to open good tribute ground. Our north lodes are unworked below the adit above, from which considerable quantities of tin have been raised. We are driving a cross-cut north from Taylor's shaft to intersect them; this cross-cut has been driven 80 fms. by former adventurers, and from the dialling we expect to cut two lodes within 10 fms. The pitch in the 84 at Clark's, worked last month by three men at 7s. 6d. in 1l., is now taken by six men at 4s. 6d. in 1l. The rest of the pitches are producing the usual quantity of tin. The greatest exertions will be used to get under the runs of tin in the 96, which are gone down under the 84 fm. level, of which there can be but the most favourable opinion. The mine generally is improving, and we are confident that any fair valuation would estimate her to be worth at least 10,000l. more than when she was purchased by the present company.

GREAT WHEAL BADDERN.—The following is an extract from our last report of the mine, dated 2d inst.:—The bottom of the 51 fm. level is going forward rapidly, ground good for driving; lode 12 in. big, producing rich lead, and emitting a large stream of water; the backs or stopes in this level are better than usual. The lode in the stopes west of Tweedale's shaft is 10 in. wide, almost solid lead; east of ditto, lode 8 in. big, almost all ore, and ground fair for opening. The 40 end is going forward fast, and lode as usual leady and of rather better appearance, and ground fair. The stopes in the back of this level are turning out well, both east and west of Buckley's shaft—ground fair at this point as usual. The 30 fm. end is again resumed. The rise in the back of this level, to communicate with Burger's shaft in the 20, having been completed, we have full ventilation with the said shaft completed to the 30, and in operation. The backs in this level are good, particularly at Buckley's shaft. The 20 fm. end continues very productive, and lode promising in all its characteristics—ground fair. The stopes in the back of this level are becoming rather thin—we must open other new ones here soon. The adit has shown no improvement since my last communication. We have a tribute pitch working in the adit level on the new lode at 6s. 8d. in 1l., and two other tribute pitches working—one at 7s. and the other at 9s. in 1l. We purpose to set a great number of pitches after a few months. After thinning our present stopes on tutwork, we shall do well to offer some of the ground for tribute, which we have not done hitherto. We sampled about 40 tons of lead on Saturday last; tenders to be forwarded and opened at the company's office, 50, Threadneedle-street, on Saturday next, agreeably to your direction. We shipped 88 tons of mundic on Saturday last, and have 60 tons more ready, as also about 5 tons of arsenic for sale. We sold 96l. 11s. 2d. worth of tin last week, particulars of which were sent you, and on the 15th May sold a tributers' parcel of lead ore (leavings) for 29l. 12s. In conclusion, I beg to say our general operations are progressing satisfactorily, both underground and at surface, and the general features of the mine are very encouraging.

HEIGNSTON DOWN CONSOLS.—The ground in Doidge's winze continues to be of a very congenial character for copper ore. The lode in the 45 east is 3 ft. wide, carrying a good leader of ore, 6 in. wide. No lode taken down in the 35; and the south wall is not yet reached in the cross-cut south. Hitchins's shaft is without alteration, as also the 35 west of shaft.

HELVELLIN (Westmorland).—The old level is very much improved this month, and now contains about 8 cwts. of ore to the fathom. Another vein, with ore at the surface, will join it in a few fathoms, and it is then expected this level will pay for driving. The low level has been going in a soft decomposed rock, with mineral leads passing through it, containing some particles of ore and mundic. They have just come against a hard cheek, and as it is apparently leading in the right direction, are now driving by the side of it.

HENNOCK.—The shaft men have cased and divided down the shaft from the 20 to the 30 fm. level, brought down the machine kibble for drawing away the stuff, and are now driving north to hole to the winze. The winze men cannot drive from the bottom of the winze to meet, for want of air; therefore, I fear that we shall not be able to hole under a fortnight.

HOLMBUSH.—The ground in Hitchins's engine-shaft, sinking below the 132 fm. level, is more favourable than it has been; the lode in the western stope, in the back of this level, is 15 in. wide, producing 2 tons of ore per fathom; the eastern stopes, in the same level, will produce 3 tons of ore per fathom. The lode in the end west of the diagonal shaft, is 12 in. wide, producing 1½ tons of ore per fm. The lode in the rise over the 132 fm. level, is 10 in. wide, composed of mundic, spar, and stones of ore. The lode in the rise over the 132 is 2 ft. wide, composed of quartz, prian, and stones of lead. The flap-jack lode, in the 120 fm. level east, is 3½ ft. wide, producing stones of ore, and looking more promising than it has for some time past. The lode in the 110 fm. level east is 20 in. wide, producing 1½ ton of ore per fm. The lode in the 100 east is 2½ ft. wide, composed of spar, mundic, and copper ore, producing about 2 tons per fathom. The ground in Walls's engine-shaft, sinking below the 100 fm. level, is more favourable. The lode in the 120 fm. level north is 4 ft. wide, composed of spar, flookan, and stones of lead; we have intersected several small branches of spar, spotted with copper ore, dipping north, which may fall in with the lode, and improve it in depth. We sampled two parcels of copper ores on the 30th May, at Calstock Quay, 210 tons.

KENMARE.—The engine-shaft, on the eastern end of the mine, is sunk to the depth of 36 fms. from surface, and were the sink on the course of the lode is cleaned down, mining operations can be proceeded with, and the engine shaft sunk 10 fms. deeper. The mineral lode of grey copper down to the present level has been extracted by the former proprietors, and the quality of the ore throughout is good, and the indications as it is deepened would be for even better ore. At the western end of mine, or Croker's shaft, in the bottom of the 36 fm. level, blasting took place in my presence, and the quality of the ore is as fine as I have ever seen, or can exist anywhere. I would recommend the shaft to be sunk here 15 fms., and a level extended east and west from said shaft, in the meantime sinking a winze on the lode for air, and extracting ore as the operation proceeded; 40 tons of ore per month would be got out of this, at 17l. to 20l. per ton, with a cost of labour for extracting the same, of 70l. per month. I have not yet been able to examine the other lodes on the property, which have all equally good indications, and some of them could be worked at a much cheaper cost than were the shaft is sunk. Very detailed estimates, and full report, shall be sent you in a few days.

KESWICK.—At the Brandley Mine, the Salt sump stope is worth 7 cwts. of lead ore per fm., and the Salt level rise 8 cwts. At Thornthwaite, No 1 stope is producing 7 cwts., and No. 2 stope 7 cwts., of lead ore per fm. In the bottom level sole four men are stoping, worth 1 ton to the fm.

KIRKCUDBRIGHTSHIRE.—The lode in the 74, west of Stewart's, is 2½ ft. wide, yielding ¼ ton of lead ore per fm. The 74, east of Gilpin's, is unproductive; west the lode is very large, with good stones of ore throughout. The lode in the rise in the 62 west is 3 ft. wide, with a small branch of ore. The lode in the 50 west is 4 ft. wide, yielding 5 cwts. of lead per fm. The lode in the 40 west is 2 ft. wide, making 8 cwts. of lead per fathom.

LAMHEROOE.—We have raised out of Addis's shaft, sunk on the champion lode, about 250 tons of tin work, three samples which we had taken came out high, 15, 20, 25 per cent. black tin respectively; three other samples came out at a low produce, neither being the average of the heap of tin work, because it has has not been properly mixed. I have decided on stamping 50 tons, which I calculate upon doing this month (the stamps commenced working last Saturday), and ascertain how much black tin it will yield; this will be the quickest way to come at the value of it. The burning-house will be completed in about a fortnight, at least one oven. Addis's shaft is being sunk 9 fms. deep; the lode in the bottom of the said shaft is 5 ft. wide, but poor; I have commenced driving east and west, to ascertain how far it extends in length. The 60 cross-cut is being driven 55 fms.; I calculate we have nearly 30 fms. more to intersect the lode, it will depend on how fast it dips; the nature of the killas is the same sort as we have had hitherto, not harder for breaking. I have set 5 fms. extent last Saturday, at 9l. 10s. per fm., cut 10s. per fm. The 60 fm. level on the course of the lode, both east and west, has been suspended for some time. The 50 fm. level has been driven 26 fms. east from the cross-course; the character of the lode is capel, spotted with mundic and copper ore, not saving work. The ground we are stoping in the engine-shaft will just pay for taking away, but will leave but little profit. We have about 150 tons of tin work raised at the engine-shaft.

— Mr. Murray writes from Wales, under date June 2:—Capt. Opie states that things are getting on well at Lamherooe, except that the champion lode at Addis's shaft is not so productive of tin in the capel as heretofore. It appears that the shaft has gone down on the course of one of the tin shoots, almost underlying with it, and on driving east and west we get out of it. When we have our flat-rods fixed to Jessie's shaft, and at the same time Addis's, we shall be able to tell more of this tin by sinking to the 10 and 20 fm. levels, and at the same time we shall be touching the same lode in the 60 fm. level.

LEWIS.—The north lode in the 90, east from the sump whim shaft, is 18 in. wide, unproductive. The 80 east from copper ore shaft, on the north lode, is for the present suspended, and the men put to rise in the back, for ventilation, at 8s. tribute. The 80 west, on the south lode, is likewise suspended for the present, and the men put to rise for ventilation, at 6s. 8d. tribute, and 20s. per fm. Praed's lode in the 40, 30, and 20 fm. levels, west from copper ore shaft, are opening tribute ground. On the copper ore lode there is no alteration since last reported.

LLWYNMALEES.—The lode in the 24 fm. level west is still improving. The lode in the 14 fm. level west never looked better; there is in the level as good a course of ore as I ever saw in any of the Cardiganshire mines. The lode in the stopes west of western winze, over the 14 fm. level, for 3 fms. high is equally as good as the lode in the 14 fm. level. The lode in the stopes over the 14 fm. level, west of western winze from 3 to 5 fms., 5 ft. high, is also as good as the lode in the 14 fm. level. In these stopes and the stopes before mentioned, the ground on the north side of the ore has been giving way, and became so dangerous for working under that I considered it highly improper to allow the men to work in these bargains until the ground had been properly secured and timbered; this we commenced doing on the 26th May, and by the 6th inst. we shall have thoroughly secured and made safe all the ground for the men to resume stoping again; this unforeseen circumstance has naturally thrown me out in my calculations as to the 40 tons of ore being ready by the first week in June, which, with the splendid ore we have in the bargains west of the western winze, nothing could have prevented our accomplishing.

LYDFORD CONSOLS.—At Wheal Mary, the lode in the gossan shaft is 2½ feet wide, very kindly, composed of prian and spar, spotted with good-quality copper ore. At Wheal Adventure, the lode in the adit, south of the engine-shaft, is without alteration since last report.

MERLLYN.—The lode in the 26 fm. level, east of whim-shaft, is worth 30l. per fm.; the same level west is getting through the disordered lode caused by the flat branch, and is producing good lead, worth about 8l. per fm. We have commenced driving west from the bottom of the winze to communicate with the 26 fm. level driving east of the whim-shaft; this end is worth 25l. per fm. There is no alteration in the 16 fm. level west. The 15 yard level is worth 6l. per fathom; the ground in this end is looking much more congenial than for some time past; I expect this lode will improve going west. The whim is nearly completed for the engine-shaft, which will be set on Saturday with the other bargains.

NORTH BULLER.—The Louisa engine-shaft is down 34 fms. from surface; the ground is rather harder and still in the elvan-course, but appears to be getting near the granite. We have set Louisa shaft to sink 2 fms. by nine men, at 14l. per fm. The horizontal rods and pitwork in King's shaft are nearly completed; we expect to work them next week, after which there is ground to cut for plat, penthouse to fix, &c., preparatory to sinking—set to six men, a bargain to complete at 6l. The lode in the adit, driving east of cross-course, for the last 6 ft. has been rather disordered by a flat flookan-course, but appears to be getting more regular again in the end—set 2 fathoms, to drive by two men, at 2l. 5s. per fathom.

NORTH TAMAR CONSOLS.—In opening the 10 fm. level I find some rich silvas-lead ore and a fine lode. We have now commenced a rise in the back of the 10 fm. level, to communicate with the adit, to ventilate the mine and open tribute ground.

OLD WHEAL BASSET.—The lode in the 10 fm. level above adit is 3 ft. wide, yielding a small quantity of ore. Paul's lode in the adit west is improved, and now contains a bunch of good ore 3 in. wide. Two pitches are set in the back of the 12, at 6s. 8d. and 9s. in 1l. After sinking the shaft 6 fms., a saunter lode has been cut, 2 in. wide, of spar and rich ore, but this is supposed not to be the flat lode sought for.

PENHANGEN.—We shall commence the whim-shaft in a few days.

PRAED CONSOLS.—The men in the north adit level have completed the shaft, and have again commenced driving; in the last month they have driven 11 fms. 2 ft., at 1l. 2s. per fathom, but the shaft has been such an advantage that we have set 8 fms. at 18s. per fathom, and hope in the course of the month to hole to the old adit, and soon afterwards to get into the place where the tin goes down. The men have also holed the shaft from surface to the adit near the cross lode, which will in future be the working shaft; and, as the water is now weltaken up in the ground, we shall again commence at once sinking under the adit.

SOUTH CARADON.—We have about 5 fms. further to drive in the 50 to under the splendid lode we had over, which I hope by next account we shall have to report a good course of ore. Our prospects elsewhere are good.

SOUTH OF SCOTLAND MINE.—The orey ground continues to be productive in the back of the 7 fm. level, where we have four men stoping. We expect to have a communication between the east and west lodes by the middle of next week, when I intend to set more men to work on ore. The south shaft will be enlarged and timbered down to the 7 fm. level by the end of next week, when we will, without delay, begin to make it 13 fms. deeper. Our washing department will be in operation in a few days.

SOUTH TRELAWNY.—The 60 is driving south by six men, at 65l. per fm., ground still favourable for driving; the lode is 18 inches wide, composed of flookan, spar, mundic, and killas, the end discharging more water than usual.

SOUTH WHEAL JOSIAH.—Our adit level is driven from the foot of the hill about 120 fms., and, by the application of the 10-feet waterfall, and small pipes, supply a sufficient quantity of good air to the men regularly at work. I find in the last 5 fms. driving a great change in the lode; that part which before was a hard black capel is now soft, containing mica, peach, mundic, and a little copper; the lode is 3 ft. wide, with two well-defined walls, and evidently showing a great improvement. We have also passed through a small cross-course in the last few fathoms, and I find small leaders and strings of copper in the killas by the side of the lode, showing strong indications of a mineralised stratum of country; and, judging from analogy, I should say we cannot be far from a course of ore.

TAMAR SILVER-LEAD.—The engine-shaft is sunk 1 fm. 6 in. below the 205 fm. level; in this level driving south the lode is 2 ft. wide, 1 ft. of which is rich work. In the 190 end the lode is 6 in. wide, composed of capel and spar, with spots of ore. In the 175 end the lode is 1 foot wide, unproductive. In the 160 end the lode is 3 ft. wide, interspersed with ore, and producing work of a moderate quality. In the 145 end the lode is 6 in wide, good saving work. At the north mine, in the 90 end, the lode is 2 feet wide, composed of capel and fluor-spar, with good stones of ore. In the 80 end the lode is 18 in. wide, 6 in. of which is rich work. In the 70 end the lode is 2 ft. wide, composed of fluor-spar, with some cubes of ore. We expect to sample on Saturday, the 7th inst., about 100 tons of rich silver-lead ores.

TINCROFT.—On Highburrow tin lode, at the engine-shaft sinking below the 152, at 35l. per fm., is 4 ft. wide, producing saving work for tin and copper. In the 152 fm. level driving east, at 15l. per fathom, no lode has been taken down since last reported; by extending this end about 15 fms. we shall get under the run of the tin ground seen in the bottom of the 142. In the 142 fm. level, driving east of Martin's east shaft, at 6l. per fm., lode 4 ft. wide, worth 10l. per fm. In the 132 driving east, at 6l. per fm., lode 3 ft. wide, worth 12l. per fm.; the stopes in the back of this level are worth 10l. per fm. Chapple's lode in the 120, driving west of engine-shaft, at 10l. 10s. per fm., lode 2½ feet wide, worth 12l. per fm. In Downright shaft, sinking below the 110, at 12l. 10s., lode 2½ feet wide, worth 11l. per fm. In the 100 driving east, at 7l. per fm., lode 3 ft. wide, worth 5l. per fm.; in the west end, same level, at 9l. per fm., lode 3 ft. wide, unproductive. On Grout's lode, in the 80 end, men are put to rise in the back of the level west of Downright shaft, on Chapple's lode, at 2l. per fm., to communicate with the winze sinking below the 70, in order to ventilate these levels, lode 2½ feet wide, producing good stones of ore and likely to improve; the lode in the above winze, sinking at 5l. per fm., is 2 ft. wide, worth 15l. per fm. North Tincroft lode, in the engine-shaft, sinking below the 110 fm. level, at 20l. per fm., is 2 ft. wide, with spots of ore. In the 110 east we have cut through the cross-course, and have commenced to drive south at 7l. per fm.; according to the heave in the above levels we have to drive about 3 fms. to cut the lode; in the west end, same level, driving at 10l. per fm., lode 3 feet wide, worth 5l. per fm.; by extending this end about 10 fms. we shall get under the run of ore ground seen in the bottom of the 100 fm. level. In the 100 end, driving east of Willoughby's, at 9l. 10s. per fm., lode 2 ft. wide, producing stones of copper ore; in the west end, same level, driving at 5l. 10s. per fm., we have cut through the lode, and find it to be looking well, worth 20l. In the winze sinking below the 90, 13 fms. west of this end, at 5s. in 1l., the lode is 3 feet wide, worth 35l. per fm.; in the winze sinking below this level, at 14l. per fm., on the south, lode 4 feet wide, worth 8l. per fathom.

TRELAWNY.—Trelawny shaft is down 12 fms. 2 ft. below the 92 fm. level, and still in good ground. In the 92 end north the lode is 3 ft. wide, and worth 8l. per fm.; at the south end, in this level, the lode is 3 ft. wide, and worth 9l. per fm. In the 82 end north the lode is 3½ ft. wide, and worth 18l. per fm. At the North mine, Smith's shaft is still in very good ground, and it is now down 14 fms. 1 ft. below the 55 fm. level. In the 55 end north the lode is 2 ft. wide, and worth 8l. per fm. In the 68 end, north of Trehane, the lode is 2½ ft. wide, and worth 7l. per fm. In the 78 end, north of ditto, the lode is 3 ft. wide, and worth 7l. per fm. The stopes are usually productive.

TRELEIGH CONSOLS.—Christoe Lode: In the 100 fathom level, west of Garden's shaft, the lode is 15 in. wide, with good stones of ore. In the 90, west of ditto, the lode is 18 in. wide, worth 15l. per fm. The rise above the 90 west is holed to the 80 fm. level; these men are driving the 90 fm. level. The 80, west of Garden's shaft, is re-set. In the 80, east of Christoe shaft, the lode is 18 in. wide, worth 6l. per fm. within 2 fms. of the boundary.—Parent Lode: The 64 cross cut, north of Parent shaft, is driving north to cut the lode. In the 64 cross-cut, south of ditto, we are driving south to cut the middle lode. In the 80, east of ditto, we are driving to cut the lode, which we expect daily.—Middle Lode: In the 40, west of cross-cut, the lode is 15 in. wide, with stones of ore. At Burgess's shaft, below the adit, the lode is 1 ft. wide, with stones of ore.

TRELOWETH.—In sinking the engine-shaft below the 32 fathom level, we have sunk through the elvan, and have a good-looking killas. The shaft is now down below the 32 fm. level 13 fms. 4 ft., and next week we intend commencing a 45 fm. level and cross-cut towards the lode, as well as continue sinking for bearer and cistern to fix a lift, before commencing to sink for a 60 fm. level. The ground has been very hard in the 34 cross cut, principally capels; and in the furthest part broken into the lode there is a better looking lode for copper ore. We have commenced cutting a plat at Harrison's shaft, which was sunk to its present depth (16 fms.) below adit by the old company. The lode in this shaft is 10 ft. wide, composed of mundic and spar, with stones of copper ore; about the end of next week we expect to begin sinking this shaft to hole upon the 32. We are sinking a winze below the 12, about 18 fms. west of Harrison's shaft, where the lode is very wide, producing sufficient ore to pay the cost of sinking it.

TRESAVEAN.—The lode in the old east shaft, sinking below the 300 fm. level, is 3 ft. wide, yielding stones of ore. Lode in the 176, west of Treweek's, is unproductive. At Devonshire's shaft, sinking below the 40, the lode is 6 feet wide, yielding 3 tons of ore per fm. Lode in the 40, east of shaft, is 4½ ft. wide, yielding 2 tons of ore per fm. Lode in the 75, west of the north lode, is 3 ft. wide, producing 2 tons of ore per fm. In the winze sinking below this level it is 7 feet wide, yielding 4 tons of ore per fm. We expect to intersect this lode in the 166 cross-cut, north of Harvey's shaft, in four months. The new shaft is 20 fms. below the surface, sinking by nine men; they sink 4 fms. per month. From the appearance of the ground which has been opened on this lode, there is every reason to believe that in depth it will prove productive, being parallel to the Tresavean old lode.

TYWARNHAYLE.—The 100, east of Gardner's shaft, has improved, producing 1 ton of ore per fm., and appears to be entering the run of ore ground gone down in the 90. The 90 east still produces 6 tons per fm. The 16 fathom level in Nancekuke continues to lay open good tribute ground for lead ore. The lode in the new shaft from surface is still productive of lead ore, and looks well for continuance down to adit, in which level 40 fathoms have been laid open upon lead ore ground: 622 tons of copper ore sampled on the 27th, and 20 tons lead ore next week.

WELLINGTON.—The lode in the 50 fm. level, east of the engine-shaft, is 2 ft. wide, principally spar; the ground here is hard; the ground in the cross-cut, driving north in this level, is just the same as for some time past. The lode in the 20 fathom level, east and west of the western whim-shaft, is from 1 to 2 ft. wide, producing some good stones of copper ore. The 40 fm level, on this lode, is for the present suspended. There is no change to notice in the western adit level. The water is all drained from No. 2 lode north. We hope now to be able to resume the working of this ground, from which we expect to raise some good work for tin. There has been but little ground driven on Fisher's lode since the last report. The men have been rising against the shaft sinking under the shallow adit. On Monday the rise and shaft were communicated, which has put us all right for ventilation, and this morning (June 3) we have commenced to drive the deep adit level east on the course of the lode; this lode here is 2 ft. wide, and is looking very promising to be a good lode for tin. As soon as this shaft is made complete to the adit level, we shall resume driving west on this lode. It was stated in my report, some time since, that we had cut a lode in this cross-cut 25 fathoms to the south of Fisher's lode. Now that the shaft is communicated with the adit level, we shall resume driving on it.

WEST WHEAL JEWEL.—The 85 fathom level, west of Williams's cross-course, on Wheal Jewel lode, is worth 10l. per fm. In the 70, west of Williams's cross-course, on same lode, lode unproductive. In the 75, west of Hodges's cross-course, on Tolcarne tin lode, lode not taken down in the past week—when last taken down worth 12l. per fm. The stopes in the back of this level worth 25l. per fm. The 57 east, on the same lode, when last taken down worth 5l. per fm. The shallow adit level, west of Tregoning's shaft, on same lode, is worth 6l. per fm. The stopes in the bottom of the 12, east of Tregoning's shaft, on same lode, are worth 10l. per fm. The stopes in bottom of this level, west of Tregoning's winze, on same lode, are worth 24l. per fm. These stopes are working on tribute.

WEST WHEAL SETON.—The cross-cut in the 80 is driven south of the south shaft 5 fms.; we expect in the course of a month to intersect the lode. The lode in the 70, west of the south shaft, is 2½ ft. wide, producing stones of ore. The lode in the 55, west of shaft, is 3 ft. wide, producing stones of ore; this level is extended 67 fms. west of the shaft; in driving the last 20 fms. the lode has improved, varying from 1 to 2½ ft. wide, producing from 1 to 3 tons of ore per fm. The winze sinking below the 55 is 47 fms. west of the shaft; the lode is 2½ ft. wide, producing 4 tons of ore per fm. The lode in the 18, west of shaft, is 4 ft. wide, composed of spar, mundic, and prian, with occasional spots of ore. We have not intersected any lode in the cross-cut north or south from the engine-shaft in the 50, but have every reason to believe that we shall cut the south lode in a month or two.

WEST WHEAL VIRGIN.—We are still driving our 19 fm. level, east and west of engine-shaft. Since my last report we have cut a large stream of water in our eastern end proceeding from the lode, and in the lode we find good stones of tin. In the end going west the lode is much the same as last reported. In the Grove shaft we are down 3 fms. from the surface, and at that depth the lode has a very kindly appearance for tin. We are also sinking a shaft from the surface on another lode, which has the kindliest appearance for tin that I have seen in this sett.

WEST WHEAL TOWAN.—Taylor's engine-shaft is sinking in good ground. If it continues, a 40 fm. level will be reached in two or three months. The 20 fm. level has intersected the large cross-course, which is 4 ft. wide, composed of soft prian, flookan, and lead ore, and it is thought will open good tribute ground for lead. The ground has improved in the 20 cross-cut north, towards Great Towan lode: 6 fms. were driven last month, 8 fms. expected to be driven this month. There remain about 24 fms. to intersect the lode. The 7 fathom level from Caroline's shaft is opening good tribute tin ground. Other levels without alteration. Four pitches working on tin, three at 10s., one at 12s.

WHEAL ADAMS.—The 72 end has reached the western part of the lode, which will produce, by the size of the end, 6 cwts. of lead per fm. We expect to drive to the boundary in the course of two or three days. In the rise in the quarts se the lode will produce 2½ tons per fm. Six men are engaged in taking down the lode in the side of the level to the north of said rise; where it is 2 ft. wide, and worth 25l. per fm. for the width of the lode. The stopes in the bottom of the 60 will produce 2½ tons of ore per fm. No lode taken down in the 50, north of old engine-shaft. The ground in the 40 cross-cut continues good. The stopes in the back of the level, north of shaft, will produce ¼ ton per fm. The lode in the 28 north is disordered by a cross vein of flookan and quartz; the pitch in the back of the level is improved, and the tributers are earning fair wages. At Aller, the lode going to hill looks better; it is more regular, and walls better defined. Hard capels (hornstone) have made their appearance at hill, and the manganese is, therefore, but little in the end at present. We have procured a vessel, and shall ship off the ore (probably more than 50 tons) by Wednesday next.

WHEAL ARTHUR (Calstock).—I have this day (May 31) set a winze to sink in the bottom of the 20 fm. level at 6l. per fathom—the branch of ore in this place is worth 12l. per fathom at the present time. We have cut a hard capel in the 20 fathom level driving north, similar to the capel that was cut in the shallow adit level before the lode was discovered; if so, we have not many feet to drive before we cut the main north lode—I have set this level to drive at 5l. per fathom. The ground in the 50 fm. level is altered much for the better, and a great deal of water is issuing from the end—I have set this level to drive at 6l. 10s. per fathom. As soon as we cut through the capels I will inform you immediately, which I hope will be in a few days.

WHEAL CREBOR.—We let on Saturday last the 40 west to six men, at 6l. 6s. per fathom; a promising lode in this end. The 54 is stopped, in order to drive a cross-cut north, at 4l per fm, The tribute pitches were re-set at former prices. We shall sample above 30 tons of tolerable quality ore about the end of the month. The foundation of engine-house is now being taken out, and everything getting on as fast as possible.

WHEAL ENNIS.—We have cut the lode in the engine-shaft, and are sinking on it by nine men, at 8l. per fm.; it is about 2 ft. wide, composed of a beautiful blue flookan, containing lead, which is increasing in quantity as we sink on it. This is the Middleton's lode of the celebrated East Wheal Rose (which immediately adjoins this on the north), and from the situation of both mines there is not a doubt that all East Wheal Rose lodes run through this sett; its appearance is decidedly the same, and equally as favourable as in that mine, where it has produced so much lead; and from the fact that we have lead in it at present, being only 24 fms. from surface, and that increasing in quantity, it is only fair that we should expect a rich mine when sunk to a greater depth, and levels extended on the lode.

WHEAL GOLDEN.—Thorne's shaft, sinking under the 77 fm. level, ground good, lode 1 ft. wide, producing 9 cwts. of ore per fm.—we expect it will be sunk to the 87 fm. level by the end of this month. In the 77 fm. level south the ground is good, lode 4 ft. wide, producing 13 cwts. of ore per fm.; in the winze sinking under the 77 fm. level north, ground good, lode 20 in. wide, producing 8 cwts. of ore per fm. In the 70 fm. level north, ground good, lode 1 ft. wide, producing 8 cwts. of ore per fm. In the 60 fm. level north, ground hard, lode 8 in. wide, producing 4 cwts. of ore per fathom. In the 50 fm. level north, ground hard, lode 2 ft. wide, but poor for ore. At the engine-shaft, in the 70 fm. level south of cross-cut, ground hard, lode 3 ft. wide, poor for ore. At Webb's shaft, in sinking under the 60 fm. level, ground good, lode 1½ ft. wide, producing 12 cwts. of ore per fathom. The stopes and tribute pitches are looking just as last reported. I am sorry to inform you we had the misfortune to break the axle of the steam-whim engine on Friday, 23d May, which will oblige us to have a new axle and cage cast complete; it cannot be had and fixed on the mine until Saturday (31st May), in consequence of which we shall not be able to sample more than 40 tons of ore on that day.

WHEAL HAMLYN.—I found the back of the east and west lode that we are now driving on the course of, and you may rely that it is a very promising one; I have put two men to open it in different places, that you may see the character and size when you and your friends come down. I think you will be pleased to see it, and had you not been coming I should have sent you a box of specimens from this lode, which is composed of mundic, prian, peach, greens, lead, and black copper ore—it is looking splendid. We have discovered another east and west lode, 4 ft. wide, and about 10 fms. north of this one, underlaying south, consequently these two lodes will meet each other about 5 fms. below the adit level. We have no change as yet in the adit level.

— *June* 5.—We have discovered in the quarry the back of the east and west lode that we are driving east on the course of in the adit level; and I can assure you that I am most agreeably surprised to see such a pretty lode—it is composed of mundic, prian, soft sugary spar, plenty of flookan, greens, lead, and black ore, with malleable, or native copper. Our adit end is about 25 fms. behind this place, and will come in about 10 fms. deeper; at this time, the lode in the adit level is much disordered, being mixed up with limestone; but by driving on in this direction we shall get entirely out of the lime rock and into the killas, where we may expect to have something very good, and even now, the further we drive the better it gets; there is another east and west lode about 12 fms. north of this one, underlaying south, and this north; consequently, they will be together about 5 fms. below the adit level.

WHEAL LANGFORD AND BARING.—Since my last, we have sunk Dare's shaft 5 ft. below the adit level, and have favourable ground, but have an increase of water, particularly so the last two or three days. We have commenced cutting down or lengthening Baring's shaft, and timbering the same at Pengelley's cross course, and hope to commence sinking on the lode in the course of a few days. We took down the silver lode in the north adit level yesterday (June 4th), and broke about 6 cwts. of silver ore. The building the engine house, &c., is getting on as fast as possible. The silver ore I mentioned in my last report is now ready for market—about 1 ton 15 cwts. I have assayed a sample from the two parcels, and find there is but a few ounces difference in produce, and have, therefore, put the two parcels together, and made one of them—a sample of which is forwarded to the different smelters.

WHEAL MARY ANN.—Pollard's shaft is sunk 3 fms. under the 70 fm. level, where the lode is 2 ft. wide, and worth 6l. per fm. The lode in the 70 fm. level north of the shaft, is 2 ft. wide, and worth 6l. per fm.; in the same level south it is 2 ft. wide, and worth 7l. per fm. The lode in the 60 fm. level, south of the shaft, is 4 ft. wide and worth 9l. per fm. The lode in the winze sinking under this level is 2 ft. wide, and worth 6l. per fm. The lode in the 50 fm. level, south of the shaft, is 2½ ft. wide, worth 4l. per fm. The lode in the 70 fm. level, south of Barratt's shaft, is 2½ ft. wide, and worth 10l. per fm. The stopes throughout the mine are producing much as usual. We sampled, on Saturday last, two parcels of lead ore—No. 1, computed 64 tons, and No. 2, 46 tons.

WHEAL TOM.—We have erected our whim on our newly-discovered lode, and on which we sunk the shaft 11 fms. 1 ft. from surface. The water became too powerful, and drove us out of the shaft, but we shall keep it, I hope, to the 20 fm. level by the aid of the whim. We cut 5 ft. through this lode in the 11 fm. level, and found it to be composed of copper, lead, mundic, iron, black jack, and tin—a more kindly lode at the present depth I never saw; it has every appearance of making bunches of ore, as, on going deeper, the strata around it more congenial. We shall recommence sinking on this lode forthwith; it is 107 fms. south of our copper lode, upon which we are driving the adit, and also underlays south; it is 4 ft. big, and most kindly for making ore. Further south 101 fms. we have cut in our cosseaning pit a lode 3 ft. big, underlaying north; it is composed of mundic, gossan, &c., and we are now sinking on it a few fathoms to find its underlay. Further south still, 52 fms., there is another copper lode 2 ft. big, also underlaying north; and 108 fms. from this we have our great tin lode, 4 ft. big, underlaying north 2 ft. per fathom, upon which we have sunk a shaft 10 fms.; the stratum is a beautiful white killas; the lode is composed of blue capel, iron, woolfram, and tin, improving fast as we sink on it. Our next lode is 49 fms. further south, underlaying south, 3 ft. big—a very kindly lode, and will, from present appearances, make tin at no great depth. We have another lode further south, which has been opened on in our cosseaning pits. The sett is 494 fms. wide, as per measurement, and 650 fms. long on the course of the lodes. We are getting on well with our adit on the great tin lode—price for driving 4l. per fm. We are busy taking out our wheel pit for the wheel and stamps, and are preparing our floors for dressing. Our tenders are out for the engine-house, and we shall commence the foundation about the 20th inst. The mine is gradually improving.

WHEAL TREMAYNE.—In the boundary engine-shaft, sinking under the 73 fm. level for bearers and cistern, to fix a drawing-lift in the 73 fm. level, the branches are disordered by floors of spar, which are now worth 20l. per fm. In the 73, east of boundary, the lode is 15 in. wide, worth 7l. per fm. In the 63 east, on the engine lode, the men are driving on the flookan for a communication with Allen's shaft, which will be accomplished shortly, and they will resume driving on the lode again; same level, east of boundary, on the south branches, is communicated with. Allen's shaft is communicated with the 63 fm. level, and the steam-whim has commenced drawing to bottom. The branch in the 53, east of Allen's shaft, on Allen's branch, is worth 7l. per fm. At Painter's flat rod shaft, on the south lode, sinking under the 50, the lode is 9 in. wide, composed chiefly of flookan and spar, unproductive. In the 50 west the lode is 18 in. wide, worth 11l. per fm.; in the winze sinking under the 40, west of the same shaft, the lode is 18 in. wide, worth 10l. per fm. In the 40, west of the whim-shaft, the lode is 10 in. wide, worth 6l. per fm.; in the rise, back of the same level, for a communication with the winze sunk under the 30, the lode is 9 in. wide, worth 6l. per fm. At Madron's shaft, in the 70 cross-cut, south-east of the shaft, we are still engaged driving across the great flookan, which is favourable for driving, and we expect to intersect the south lode by the end of this month; in the same level, west of the shaft, the lode is 3 ft. wide, opening tribute ground. At Goldworthy's shaft, sinking under the adit level, on the middle lode, we have cross-cut 2 fms. south and intersected the lode, which is 18 in. wide, and worth 5l. per fm. At Champion's shaft, on the north lode, in the 10 west, the lode is 9½ feet wide, and worth 12l. per fm. At the middle shaft, on the same lode, sinking under the 10, and in the cross-cut north, in the same level, there is no change since last reported; both are in clean killas ground. The cross-cut in the 30, west of Laurie's shaft, for a communication with the middle shaft, is progressing favourably. Our tribute department is looking much the same as it has done for some time past.

WHEAL WILLIAMS.—We have cut down and secured the south shaft 4 fms. from surface, and are getting on with the shaft-bob, and all other necessary work for the engine, as fast as we can. The completion of the smith's shop will tend to expedite this latter portion of our operations by enabling us to do our iron work there. The erection of sheers, capstan, whim, &c., will all be proceeded with without delay; and I have no reason to doubt that our engine will be ready to work in three weeks from this time.

WHEAL UNY.—Since the water has been let down out of the adit, we have thoroughly examined a lode, 23 fms. 2 ft. north of engine-shaft, and 9 fms. 2 ft. north of Old Uny lode; we feel highly pleased with the appearance of this lode, it varies from 2 to 4 feet in width, underlaying south about 2 ft. 6 in. in a fathom, carrying its head 5° to the south of east, which we consider to be favourable; lode in the eastern end is 4 feet wide, composed of gossan, quartz, prian, and stones of copper and tin ores; copper green are to be seen in nearly all parts of the level: the lode has been opened on about 60 fms. This is a point not to be lost sight of, it being in a good stratum of killas, and not far from the junction of granite; we, therefore, deem it advisable to explore it: to work the same advantageously it must be intersected by a cross-cut; there is one already driven 6 fms. north of Old Uny lode on the cross-course, about 40 fms. to the east of the end, which we would recommend being extended still further north, to intersect the lode, where it may prove productive, as the Old Uny lode did nearly to surface. The masons are getting on exceedingly well with building the engine-house—we think it will be complete for the engine in four weeks. Mr. Hodge, the engineer, informs us the engine is progressing very favourably. The horse-whim is working, and the men are clearing the engine-shaft, and in stoping the back of the adit, after they have finished, there are two adit shafts to clear. The carpenters are engaged in making a small capstan and sheers, to lift the stone, &c., to build the engine-house, by erecting which we shall save a quantity of timber and sawing.

WHEAL ZION.—*June* 4.—The shaft is now down below 9 fms. It is sinking gradually 1 fm. per week, but as the lode is getting softer, I think next week's sinking will be much more. The character of the lode is excellent—all that we can wish for. I have found it 50 fms. further east, where the lode is about 10

be sunk, I expect, for less than the present price, which is 7*l.* per fm. Our drain adit will be completed by to-morrow, after which our shaft will be almost without water. The second adit, which will come in at the shaft at 12 fms. 4 ft., will, I hope, be completed 10 fms. deep in two months, at which depth I intend to drive on the course of the orey part of the lode towards the west end of the mine, where the same adit will be 25 fms. below the surface; by virtue of which adit the adventurers may expect the fulfilment of their desire, without the aid of steam-power. I have nearly finished the rough cost-sheet for May, which was a five weeks' month; the expenditure is about 80*l.* We have now 24 men, choice hands, all of whom are actively engaged for our benefit. The adventurers may rely upon it there is not, nor shall there be, any idle bread eaten at Wheal Zion.

ALLT-Y-CRIB.—We have made a communication from surface to the chapel level, by means of the air shaft; this throws open a good extent of profitable ground for us, but it will require a few days to secure the old workings, &c., before we can begin on it. We have laid down two thirds of our line of rods through the adit level, cut open the ground, and shall get all ready for a start on the pay-day—we shall increase our returns after this work is accomplished. A rock of ore from the air-shaft is now lying in Messrs. Chaplin and Horne's warehouse, at the Camden station; it weighs 18 cwts., and a single mass of such purity and size has rarely, or perhaps, never been seen before, affording a plain reason why the old people perservered in working this mine to such a depth.

BWLCH CONSOLS.—There is nothing new here. Our profit last month was rather more than 150*l.* We have for some time been thinking to commence sinking a shaft at Pwll-y-ynad, but have made arrangements for working this mine on a plan mutually advantageous to our neighbours and ourselves.

GROIANGWYNION.—We have got into some very good ore ground in the dep adit driving on the long drift lode, and I expect we shall get on very well, but are not far enough west for the main ore ground above us; when we get into this body of ore we expect to make larger returns than any mine in Cardiganshire, which we are warranted in asserting from the length of ore ground being upwards of 250 fathoms in one run.

DAREN.—The ore ground in this mine is extending most favourably, and the body of copper and lead ore is much greater than we at first calculated upon.

BRONFLOYD, CAEGYNON, CWM DAREN, and PEN-Y-RHIW are becoming great and valuable mines.

FOREIGN MINES.

LINARES MINES.—The following has been received from Mr. H. Thomas:

Linares, May 17.—We have again the pleasure of waiting on you with our half-yearly report on this mine, which we shall do as usual by noticing generally the work accomplished during that period, the operations now in hand, and the prospects as they appear to be developing. The operations which we described as being in progress at the time of our last general report has been satisfactorily continued, with one departure only from the recommendations therein given—viz., that of sinking Santo Tomas, or the engine-shaft, for the permanent drainage and deepening of the mine, instead of fixing the pit-work in Wilson's shaft, and working by flat-rods from the engine. The satisfactory progress we have made in this work has shown the change to be much for the better. The engine-shaft is now between 3 and 4 fms. under the 45, at which level a cross-cut has been driven, the communication perfected, and the plat cut. Soon after the additional pitwork now on the way is on the mine, we hope to have the shaft completed to the 55, and thus be prepared to resume sinking under that level in a satisfactory manner, and with arrangements adapted to the permanency of the undertaking. Wilson's shaft has been sunk from the 45 to the 55 fm. level, on the course of the lode, which has been very productive; and that level being communicated with the shaft, there is now every facility for drawing by means of the whim from the deepest part of the mine. The total length which has been driven in the 55 fm. level, east of Wilson's shaft, is about 26 fathoms, of which a large portion has been through very productive ground, varying from 1½ to 7 tons in a fathom, the eastern end being at present of the latter value, and within a short distance only of reaching the deepest and richest parts of the old men's workings. Neither will any time be lost in cutting the plat in this level, at Wilson's shaft, and resuming the driving west, to avail ourselves of the rich ore ground sunk through by that shaft, of which we expect a continuance in that direction. The deepest part of the mine—viz., the 55 fm. level, may, therefore, be considered to have developed itself in a very satisfactory manner, and encouragingly for the future. The 45 fm. level is driven east of Shaw's whim-shaft about 23 fms. and for the last 7 fms. has been in productive ground, varying from ½ to 6 tons per fm.: this end will promptly be extended under the productive workings lately met with below the 31; it is now worth 2½ tons per fm., and we are anticipating an early addition to this valuation.

We have but lately resumed driving the 45 fathom level west; the lode was poor when discontinued by the late adventurers. We have extended it about 3 fathoms, and find it improving, being now worth ¾ ton per fm., and leading us to expect a considerable addition to our ore ground westward above this level; the proper development of this ground is also now much facilitated by the completion, since the last general meeting, of our western (San Juan) whim-shaft and to this level, and its complete drainage. In our last general report we advised you also that we had met with ore ground in our 31 fm. level, driving east of Shaw's shaft, and since then we have reported that for a length of 6 fms. we have driven on the lode, worth from 1 to 3 tons per fm., when we holed to old workings of great extent. These we have cleared for 14 fathoms long on the line of the level, and for 5 fms. long under the level, where we have found that the old men had taken away the lode for 3 or 4 varas deep, leaving in the bottom a valuable piece of ground now working at a moderate tribute, and producing from 5 tons to 6 tons per fathom: there remains about 5 fms. more to clear under the level to the point where the two lodes divide, which we expect will also be valuable; and beyond the point of division—viz.: 10 fms. from the first meeting with old workings we are continuing to clear on the north lode, being ignorant how far the old workings have extended. On the south lode we have met with good backs, which will be set at a low tribute, and shall continue the level for other discoveries. With respect to this part of the mine, we may mention that we have every reason to believe, from the great extent of the old surface workings, that we have a very valuable property to develope. This will also require us promptly to determine on a site for another whim-shaft. We do not think it prudent to hold out much hope of large reserves above the 31 fathom level, yet as the 45 is advancing under this, we anticipated considerable produce by its extension.

The points above enumerated will convey to you what we have mostly done in new ground since the last general meeting, on the whole, of a satisfactory character; and having at the same time pushed forward the due sinking of our shafts—viz, San Juan, Wilson's, the engine, and Shaw's shafts, we shall soon place our facilities for working on a par with most English mines of the same depth. Shaw's whim-shaft, not specially alluded to above, is sinking between the western and eastern runs of ore ground, and will command a considerable portion of each: it is now down between 7 and 8 fms. under the 45, and we are so far fortunate in sinking it with but little hinderance from water. The chief points to be noticed from the foregoing discussion as the result of our last half-year's working are the discoveries of the new run of ore to the east of Shaw's shaft, and the continuance of the ore ground downward, as proved by sinking Wilson's shaft in a good lode to the 55 fm. level, as well as by finding a good lode in driving that level—both of extreme importance to the future prosperity of the mine.

In noticing also the reserves of ore, as we indicated to you in our report of Nov. 16, 1850, we feel perfectly satisfied that the value thereof, as we then stated—viz., 1500 to 1600 tons—has been fully borne out; and having broken during that period an average quantity of 126 tons monthly, which also corresponds with what we then mentioned as likely to be the produce, we now feel more security in the valuation of our present reserves, which we compute at 2000 tons of lead ore, and which will be taken away at a moderate tribute. This shows an increase of our reserved ground as then mentioned, and continuing a monthly raising, for the next six months, of 150 tons, we have reason to hope that, as we shall then have reached, or be approaching to, another level, we may make an addition thereto, as well as increase our monthly returns.

Linares, May 24.—The 55 fm. level, driving east of Wilson's shaft, is still good, being worth 6 tons per fm. We shall resume driving west of Wilson's shaft in a day or two the men having been engaged since the communication was made in bringing down the shaft square with the level, and in cutting ground for a plat. The 45 fm. level west continues much as last reported, worth ½ to ¾ of a ton per fm. The same level driving east of Shaw's shaft is not quite so good. Two new tribute pitches lately set—viz., one in the back of the 45 fm. level, west of Wilson's shaft, to two men, at 2½ rls., and in the back of the 31 fm. level, in the old workings lately discovered, to two men, at 1½ rls. per arroba, are turning out very well. Most of the other pitches are producing fair quantities of ore. I annex stock account, in which you will find included the late shipment, per *Richard* and *Ann*, of 53 tons 15 cwts. With reference to the smelting, as I mentioned in my last, we lighted the fires on Thursday (22d inst.) for the purpose of first warming and drying the work. We shall to morrow charge for smelting, but you must not expect that the first few charges will yield much, as the furnace bottoms invariably absorb pretty much at first; this, however, is not lost, but remains as stock. I am well pleased, so far, with the furnaces, and feel confident of getting out a good produce. In my next I shall be able to advise you more fully hereon,

May 24, weighed in, 32 tons 5 cwts.: total in stock, 1040 tons 9 cwts.

WEST WHEAL JEWEL MINING ASSOCIATION.

At a special general meeting of shareholders, held at the offices of the company, Old Broad-street, City, on Tuesday,

JAMES HERRON, Esq., in the chair,

Mr. NICHOLSON (the secretary) read the notice convening the meeting from the *Mining Journal*, which was for the purpose of increasing the capital of the association, in conformity with the provisions in the Deed of Settlement, by the issue of preference shares or otherwise, agreeably to a resolution passed at the annual meeting held on the 12th May.

The CHAIRMAN referred to the minutes of the last meeting, and after some observations respecting the concern, by Mr. Pryor and others present,

It was moved by Mr. D. CAMPBELL, and seconded by Mr. TORKINGTON:—

That the capital of the company be increased by the issue of 3715 preference shares of 30*s.* each; every proprietor of five existing shares to have the privilege of taking five preference shares, on payment of 10*s.* per share, on or before the 24th day of July, 1851, and the further instalments to be called for in conformity with the provisions of the Deed of Settlement in reference to calls generally.

That before any dividends out of profits be paid upon the now existing shares in this undertaking, a bonus of 1*l.* per new share shall be paid, or payable, to the holders of such preference shares; and after the receipt thereof they shall be placed upon an equal footing with the present shareholders, as to all dividends and other advantages attaching to the existing shares in the association.

That no transfer of such preference shares shall be made on the books of the company until the whole 30*s.* be paid, and such shares shall be held subject to the Deed of Settlement of the association, and to the regulations thereof; and should the whole of the 3715 shares not be taken up by the present proprietors on or before the above date, the residue of such preference shares shall then be offered *pro rata* to those who shall have subscribed to such additional capital; and if the whole shall not be so taken up, then the directors shall be at liberty to offer them to the public on such terms as they may deem expedient, but not at a less rate than 30*s.* per share.

The above resolutions were carried unanimously.

The CHAIRMAN expressed his opinion that the proposed sum would, in all probability, show good results before the close of the year.

Mr. D. CAMPBELL proposed, and Mr. RAILTON seconded, a vote of thanks to the chairman and directors, for their watchful interest over the welfare of the concern, when those gentlemen having returned suitable thanks, the meeting separated.

[**** Reports of the meetings of the St. John del Rey, the Imperial Brazilian, and the Kinsigthal Mining Companies will be found on page 278.]

[EXTRACTS FROM OUR CORRESPONDENCE.]

WHEAL HAMLYN (Bridestow, Devon).—Arrangements for extending the future operations of this copper mine has been made; and the parties in whose hands the management is placed appear determined to prosecute the works with vigour. In driving towards the main lode, which it is expected they will cut in six weeks from the present time, they have discovered an east and west lode, 4 ft. wide, composed of pure native copper, green prian, and mundic; and approaching this enormous lode, which is 30 ft. wide, it is fully anticipated they will come into a large deposit of copper ore; and, from the present promising indications, it is believed this will prove one of the richest undertakings of the district.

CARN GALVER MINES.—An excellent tin lode has been discovered crossing the Ranger lode, called Tiegwara lode; it has been opened 4 ft. wide, and worth 1*l.* per barrow. At the meeting, held 20th May last, the shareholders came to the determination to make the shares 512ths, instead of 1024ths, which, we are happy to say, there is no reason to regret. We are daily expecting to cut another good tin lode, called the Heathcock lode, in the Ranger adit level. We are driving on the Wheal Osborn lode, which presents good indications for tin; and the deep adit, or sea level, is being driven to cut the wheel-pit lode. All the levels are in easy ground.

LIQUEFACTION OF CARBON AND DIAMONDS.

[TO THE EDITOR OF THE TIMES.]

SIR,—In the article on the Great Exhibition in the *Times* of the 2d June, it is stated that "if it were practicable to liquefy pure charcoal, and allow it to crystallise in cooling, we should produce diamonds artificially." It may be interesting to your readers to know that carbon was liquefied not long since by M. Despretz, of Paris, by means of the heat produced by an enormously powerful combination of galvanic batteries. On cooling it invariably assumed the form of plumbago, whatever its original state had been. It has, therefore, been conjectured that the diamond is the result of an extremely slow crystallisation at a moderate temperature, which, perhaps, occupies ages, and which cannot be artificially imitated.—R.: *Westminister, June* 2.

SIR,—Your suggestion, that "if it were practical to liquefy pure charcoal, and allow it to crystallise in cooling, we should produce diamonds artificially," has been answered by your correspondent "R.," who says that such liquefaction was effected by a French chemist by means of the heat produced by enormous galvanic batteries, and that the matter when cool assumed the form of plumbago. Now, I think this is no answer to your proposition, that crystallised carbon would be found to be a diamond. "R.'s" notion is, that the galvanic batteries communicated heat only to the carbon to liquefy it—in other words, that carbon was liquefied by heat alone. I have great reason to believe that this is an error into which all the chemists since the days of Lavoisier have fallen, and which has corrupted and rendered delusive our entire system of chemistry. It has always been assumed (for want of a due consideration of the subject) that the galvanic, voltaic, and electric fluid (all, no doubt, modifications of the same matter) acted on substances by heat alone, and thereby effected a decomposition; and Sir Humphrey Davy accordingly supposed that by such heat he had decomposed the alkalis, and proved that the bases of soda and potash were the metals sodium and potassium.

Now, the doctrine of the chymists anterior to Lavoisier, and which he affected to overthrow, was, that a metal was an earth, *sui generis*, combined with a phlogistic matter, and which, in fact, was nothing else than electricity—a matter in those days in its infancy, and not at all understood. It is now known that a metallic oxide may be re-converted into a metal by the transmission through it of electric matter. Strange that although this experiment is well established, chymists should have no idea that electric matter may combine with a substance, and thereby form an entirely new matter, and should merely attribute to it the power of communicating heat, and of thereby effecting the decomposition only of substances on which it is made to act.

A little reflection, and an examination into the cause of the change of a metallic oxide into a metal by means of electric matter, will clearly establish the fact, that instead of decomposing the alkalis he (Sir H. Davy) made his two metals, sodium and potassium, by combining those alkalis with the galvanic or electric matter; and that the reason of their being so transient is, that the alkaline bases have a much greater affinity for oxygen than for the electric fluid, so that when exposed to the atmosphere they directly seize the former to the prejudice of the latter, which they instantly part with.—W. F. S.: *Surbiton, June* 3.

KILBRICKEN MINING COMPANY—WINDING UP.

A meeting was held on Monday, before Master Richards, for the purpose of considering claims against the estate.

Mr. SURMAN appeared to establish a claim for 15*l.* on behalf of a Mr. Williams, for services rendered by him in going to the mine, and surveying it, and reporting upon its state and condition.—Mr. HARRIS, on behalf of the official manager, opposed the claim, on the ground that Mr. Williams had already been paid 5*l.*, and as he had been employed by Mr. Crockford, it was that gentleman ought to pay him. It was very odd that during the whole time this proceeding was before the Master this claim was never made until recently, and now it was made by a clerk in Mr. Crockford's private business, because he wanted to have such a report on the state of the mine as would enable him to sell it. At all events, it was understood the work was to have been done for 5*l.*, and that had been paid.

Mr. SURMAN said that Mr. Williams had been employed by Mr. Crockford as the most eligible person to make a true and disinterested report on the actual state of the mine.

Mr. GATE (a shareholder) also opposed the claim.—At this stage of the proceedings the Master was called into another room, and in his absence words between Mr. Surman and Mr. Gate ran so high, that threats of utter annihilation on the one side, and bold defiance on the other, were freely used; but "the puddle in a storm" subsided on the re-appearance of his Honour.

Mr. HARRIS said, that but for this claim and another the company might have been wound-up long ago; but he feared they should both be now litigated.—Mr. GATE said he had been deceived, and every one who had any thing to do with the scheme had been deceived. Some shareholders had paid 15*l.*, and others 10*l.*, on shares in the mine at a time when they were led to believe that they were at 5*l.* premium, when they were really not worth one shilling.

Mr. SURMAN could not understaad how it was that a call of 30*s.* per share was made on 1300 shares, and that 1500*l.* was to have been raised to pay only 400*l.*, which was the whole amount of the liabilities.—Mr. HARRIS should say that Mr. Crockford had sold the mine twice, and one sale was effected on the representation that the shares were at a premium of 5*l.*—Mr. GATE: We have paid 1500*l.*, for which we have never received a shilling.

Mr. HARRIS said the next claim he should oppose was that for two years' rent for an office in King-street, St. James's; there was no entry in any of the books to show that this office was for the use of the company.—Mr. GATE: The party who made that claim was the private general servant of Mr. Crockford. He often inquired for him at the place, but he never was there, but was always to be found in Mr. Crockford's wine office.

The MASTER said he should require some further evidence to substantiate those claims than that now before him.

Mr. SURMAN said he would endeavour to procure further affidavits.—Mr. HARRIS said that should not be done at the expense of the estate.

The parties then left, Mr. Gate and Mr. Surman apparently on the best possible terms.

IRON IN THE CRYSTAL PALACE.—Mr. Blackwell, Dudley, has, with immense labour, at great sacrifice of time, and some cost, furnished a large table in Class 1 with stones which have no very attractive appearance—and are, therefore, passed by unnoted by many; but those rough dark stones are of the highest importance to us all—and here is such a collection as hitherto has never been presented at one view. It is a complete series of all the varieties of ironstone found in the United Kingdom; and Mr. Blackwell has furnished to the large catalogue such an account of that series as is not to be met with in any other work. The following quotation from that source furnishes in a few words an accurate accounnt of our iron-producing districts:—"So extensive are the ironstone beds of the coal measures, that they furnish in themselves the greater part of the iron produced in Great Britain; but the iron-making resources of the kingdom are by no means confined to them. The carboniferous, or mountain limestones of Lancashire, Cumberland, Durham, the Forest of Dean, Derbyshire, Somersetshire, and South Wales, all furnish important beds and veins of hæmatite; those of Ulverstone, Whitehaven, and the Forest of Dean are the most extensively worked, and seem to be almost exhaustless. The brown hæmatites and white carbonates of Alston Moor and Weardale, also exist in such large masses that they must ultimately become of great importance. In the older rocks of Devon and Cornwall are found many important veins of black hæmatite, and in the granite of Dartmoor numerous veins of magnetic oxide and specular iron ore. The new red sandstone furnishes in its lowest measures beds of hæmatitic conglomerate. In the lias and oolites are important beds of argillaceous ironstones, now becoming extensively worked; and the iron ores of the greensand of Sussex, once the seat of a considerable manufacture of iron, will, in all probability, again soon become available, by means of the facilities of railway communication." From all these localities iron ores are exhibited, and may be readily examined. The enormous increase in our own iron manufacture demands a passing notice. In 1750, the produce of manufactured iron was only 30,000 tons; in 1800, it had increased to 180,000 tons; in 1825, to 600,000 tons; and in 1850, to 2,250,000 tons. This is a much larger increase than has taken place in any other manufacture in Europe within the same period.

EXTRAORDINARY UNDERTAKING.—It is asserted, on "indisputable authority," that there is a project in contemplation to extinguish the fires of Vesuvius! "It is understood that the bottom of the main or grand crater is several thousand feet below the level of the sea. The plan, therefore, is to dig a large trench or canal from the sea to the crater—the expense of which will not exceed $2,000,000, and thus extinguish the fires that have been burning for thousands of years. It is said that the fine lands thus to be reclaimed will more than ten times pay the expense of executing the grand design." Why should not Mr. Goldsworthy Gurney make the attempt with his steam-jet?

HENDRE ISSA COAL COMPANY.—A company has just been formed for the working of these anthracite collieries, situate in the parish of Llandibie, Caermarthenshire, 15 miles from Llanelly, and 2½ from the Dock Railway. They are held on lease for 41 years, from September, 1848, at a royalty of 10d. per 21 cwts., with covenant to raise 5 tons per day ending 1850, 10 tons per day in 1851, and 20 tons per day for the remainder of the term. The veins, three in number, averaging 3½ ft. each, extend under an area of 181 acres, and contain coal free from sulphur suitable for malting, brewing, lime burning, steam navigation, and domestic purposes, burning with great heat, free from dust, and leaving little ash. Anthracite coal, besides the above uses at home, is extensively exported to nearly all the continental ports, and it is estimated that 400,000 tons are sent annually to Ireland. The profit on liberal estimates is computed at 35 per cent.; the capital required is 10,000*l.*, to be raised on shares of 200*l.* each. The cost price from the lessee is 8000*l.*, half of which amount he agrees to take in 80 shares in the company, leaving 6000*l* for working capital. Several gentlemen have already agreed to take the majority of the shares, but a few remain for allotment to approved parties.

LATEST CURRENT PRICES OF METALS.

LONDON, JUNE 6, 1851.

	per ton.
ENGLISH IRON. *a*	
Bar, bolt, & square, London	£5 2 6–5 10
Nail rods	6 2 6–6 15
Hoops	7 0 0–7 10
Sheets (singles)	7 12 6–8 5
Bars, at Cardiff & Newport	4 10 0–4 15
Refined metal, Wales*	3 0 0–3 5
Do. anthracite*	3 10 0
Pigs in Wales	3 0 0–4 0
Do. do. forge	2 5 0–2 10
Do., No. 1, Clyde ...*net cash*	1 19 6–2 1
Blewitt's Patent Refined Iron for bars, rails, &c., free on board at Newport*	3 10 0
Do., do., for tin-plates, boiler plates, &c., ditto	4 10 0
Stirling's Patent } in Glasgow	2 15 0
Toughened Pigs } in Wales	3 10–3 15
Staffordshire bars, at the works	5 5 0–6 0
Rails	5 0–5 2 6
Chairs (Clyde)	4 0 0
FOREIGN IRON. *b*	
Swedish	11 10–12 0
CCND	17 10 0
PSI	—
Gourieff	—
Archangel	—
FOREIGN STEEL. *c*	
Swedish keg	14 10–15 0
Ditto faggot	15 0–15 15
ENGLISH COPPER. *d*	
Sheets, sheathing, & bolts, *p. lb.*	0 0 9½
Tough cake	*per ton* 84 0 0

Tile	£83 0 0
Old copper *e*	*per lb.* 8½*d*
Yellow Metal Sheathing	7¾*d*
Wetterstedt's Pat. Metal	*Cwt.* 1 12 0
FOREIGN COPPER. *f*	
South American, in bond	77 0–87 0
ENGLISH LEAD. *g*	
Pig	*per ton* 17 5 0
Sheet	18 5–18 10
Pipe	19 0 0
Red lead	19 0 0
White ditto	24 0 0
Patent shot	20 10 0
FOREIGN LEAD. *h*	
Spanish, in bond	16 15–17 5
ENGLISH TIN. *i*	
Block	*per cwt.* 4 4 0
Bar	4 5 0
Refined	4 10 0
FOREIGN TIN *k*	
Banca, H. C.	3 18–3 19
Straits	3 16–3 18
TIN-PLATES. *l*	
IC Coke	*per box* 1 5–1 5 6
IC Charcoal	1 10 0–1 11
IX ditto	1 17 0
SPELTER. *m*	
Plates, warehoused	*per ton* 14 15 0
Ditto, to arrive	14 15 0
ZINC. *n*	
English sheet	*per ton* 21 0 0
QUICKSILVER *o*	*per lb.* 3*s.* 9*d.*

Terms.—*a*, 6 months, or 2½ per cent. dis.; *b*, ditto; *c*, ditto; *d*, 6 months, or 3 per ct. dis.; *e*, 6 months, or 2½ per cent. dis.; *f*, ditto; *g*, ditto; *h*, ditto; *i*, ditto; *k*, net cash; *l*, 6 months, or 3 p. ct. dis.; *m*, net cash; *n*, 3 months, or 1½ p. c. dis.; *o*, ditto, 1½ dis.;
* Cold-blast, free on board in Wales. † Dis. for cash in 14 days, 10 per cent.

WELCH BAR-IRON.—Several small lots specified are pressing on the market at low rates, without finding buyers; the make is much diminished, and the impression is, that prices have seen their lowest. The makers are not anxious sellers, as each succeeding mail from the United States continues to bring large orders for railway bars.

STAFFORDSHIRE IRON is in moderate request.

SCOTCH PIG-IRON.—The stock is diminishing; but prices have again given way. No. 1 American brands have been sold at 39*s.*, free on board in Glasgow; mixed numbers free on board, storekeepers' warrants, may be quoted at 36*s.*

SWEDISH IRON is without variation.

SWEDISH STEEL.—About 100 tons are on the market to arrive.

COPPER is firm, and in good demand.—BRITISH TIN is dull of actual demand.

FOREIGN TIN.—Not any transactions have been reported.

SPELTER.—In the early part of the week 100 tons were sold at 14*l.* 10*s.* to arrive, and 200 tons autumnal shipment at 14*l.* 15*s.* The last accounts from Calcutta brought a firm market, and diminishing stock.

LEAD is in less request.—In TIN-PLATES a large business doing.

GLASGOW, JUNE 5.—The low prices ruling cause a considerable increase in the demand for Scotch pig-iron, being now applied to many new purposes, as the cheapest material that can be made use of. A large business has been done for consumption and shipment, but there has not been any speculative demand during the whole of this year, but the decreasing stocks, and the low and unremunerating prices begin to attract attention. Mixed Nos., good brands, free on board here, may be quoted to-day at 39*s.* 6*d.* to 40*s.* per ton, nett cash; No. 1, Garsherrie, ditto, 41*s.* 6*d.* ditto; No. 1, Pinneil, free on board Frith of Forth, 42*s.* 6*d.*; No. 1, Forth, ditto ditto, 43*s.*

EXPORTS OF METALS TO ALL INDIA FROM LONDON AND LIVERPOOL,
FOR THE FIRST FIVE MONTHS OF 1850 AND 1851.

Metals.		1850.	1851.	In. in 1851.	Dec. in 1851.
Spelter	*Tons*	755	224	—	531
Copper		2388	2047	—	741
Iron, British, bars		18901	14830	—	4071
,, rails		—	2720	2720	—
Ditto, foreign		318	160	—	158
Tin-plates	*Boxes*	7228	14790	7562	—
Lead	*Tons*	977	2471	1494	—
Steel		258	192	—	66
Quicksilver	*Bottles*	22	—	—	22

New Patents.

LIST OF PATENTS GRANTED DURING THE PAST WEEK.

T. Parker, of Leeds, York, broker, for improvements in machinery for opening, cleaning, and preparing fibrous substances, and for manufacturing felted fabrics.

J. Hopkinson, of Oxford-street, Middlesex, piano-forte manufacturer, for improvements in piano-fortes.

W. B. Adams, of Adam-street, Adelphi, Middlesex, engineer, for certain improvements in the construction of roads and ways for the transit of passengers, of materials, and of goods; also in buildings and in bridges, and in locomotive engines and carriages; parts of which improvements are applicable to other like purposes.

C. A. Jaquin, of New-street, Bishopsgate, London, mechanist, for improvements in the manufacture of nails, pins, tacks, screws, and other similar articles.

I. Hazlehurst, of Marton, Dalton, Lancaster, steel refiner, for certain improvements in the manufacture of iron.

DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

W. J. and J. Garforth, Duckenfield, steam-boiler or generator.—J. Young, Wolverhampton, sash axle-pulley.—J. Steadman and Co., Bristol, ventilating hat.—A. Hurrock, Peterborough, and J. Slate, Islington, glass frame for railway and other carriages.

PROVISIONAL REGISTRATIONS.

W. Eades, jun., Birmingham, screw-stock.—L. Gaviolo, Hunter-street, Brunswick-square, pendulum escapement for a clock; also chronometer escapement.—S. Dumoulin, Paris, a corset without gusset.—T. Dossetor, Poultry, the epaulette brace.—W. Wade, Sunderland, stirrup bridge for lady's saddle.—R. M. Nunn, Wexford, Ireland, hydrometer.—H. Miles, Hackney, combined loo-table and safe.—R. A. Peacock, Slyne Lodge, near Lancaster, new configuration or design for the construction of culverts for railways and other engineering works, and more especially for sewers for the drainage of cities, towns, and other places and districts.—*Mechanics' Magazine.*

MINING APPOINTMENTS DURING THE WEEK.

7. Pay at Perran St. George, Trannack and Bosence, Devon Consols, Par Consols, Dolcoath, Stray Park, West Jewel, and Botallack.
9. Wheal Seton account, on the mine.
10. Tywarnhayle account, on the mine.—11. United and other mines sampling.
12. Ticketing at Redruth.—Carn Brea and other mines. [mena pay.
13. Stray Park account, on the mines; North Pool setting; West Caradon and Gonamena pay.
14. Pay at United, Alfred Consols, West Treasury, Cook's Kitchen, East Crofty, Phœnix,
16. Condurrow account, on the mine. [Wheal Adams.

ACCIDENTS.

Durham.—An explosion of fire-damp occurred at Byers Green Colliery, by which the son of Mr. John Robson, of Whitwell Grange, 19 years of age, who had been appointed resident viewer, was instantly killed, and literally scorched from head to foot. It appears he was going to inspect some workings long "laid off," and had a safety-lamp himself, but allowed two men to follow at his heels with naked candles, who escaped with some injury. We trust this case will receive a searching investigation, as it appears to us that the appointment of a boy of 19 to a responsible situation, involving the lives of scores of men, reflects little credit on the parties. It is said that on that day the air in all the pits in the neighbourhood was so bad, that the men could scarcely work.

Rainford.—W. Waterworth was killed by a fall of coal at the Victoria Colliery.

Wigan.—R. Goulding was killed by a fall of coal in a pit of the Kirkless-hall Company.

Bardsea.—J. Storey, was killed by a fall of rubbish in a limestone quarry at Birkrigg.

Merthyr.—W. Strange and D. Lewis were killed by a fall of coal at one of Mr. Powell's collieries, at Gellygare.

Dudley.—J. Marsh was drowned in the "sump" at Hart's Hill Colliery.

Wolverhampton.—R. Beddard was killed while working at a blast furnace at Shut End.

Coseley.—D. Baylis was killed by a fall of coal at Ettingshall Colliery.

Wheal Unity.—R. Richards was drowned whilst working in his pitch underground: some men, it appears, were employed at a short distance above the deceased, for the purpose of letting go a house of water from an old mine called Wheal Kitty, which is contiguous. The water came suddenly, much sooner than they expected, and before they had time to give notice or warning, they having had to escape for their lives, so that Richards became engulphed.

Bilston.—T. Badger was killed by a fall of coal at Mob's Bank Colliery.

Merthyr.—An explosion of fire-damp took place at Mr. Wm. Rees's Graig Pit, by which four men were severely burnt, and one had his arm broken.

Dowlais.—As Diana Phillips, aged 13, was at work in one of the mine patches, a large stone fell upon her, and before she could be extricated she was dead.

COPPER MINES OF NEW MEXICO.—A correspondent of the *Providence Journal*, attached to the Mexican Boundary Commission, writes as follows from Santa Rita de Cabre, New Mexico, regarding the copper mines of that region:—"Here, within 40 miles of Gila, and in the heart of the country of the Apaches, I find myself with a spare hour, which I will devote to giving you some account of the mines which have been abandoned for 12 years. There was formerly a population of 600 people here, and the houses occupied by them still remain in a more or less ruined condition. The spot is a charming one—a sheltered valley surrounded by high and bold mountains, the sides of which are all well wooded, a stream of pure water running through it. The mines were first opened in 1804, and have been worked by various individuals with profit, until 1838. The amount of labour which has been performed here is immense. There are several openings in the hill. The rock is usually felspar, and the ore a red oxide of copper intermixed with native metal. Large quantities of ore ready for smelting are deposited near the smelting-house. Gold is said to have been found near here, and we are told that it was the custom of one of the workers of the mines to allow the miners on Friday and Saturday of each week to work on their own account, and that many of them employed their days in gold digging. This gentleman, a M. Coursier, a French resident of Chihuahua, is said to have made a large fortune by working the mines; he had a contract to furnish the State with copper for coining, for which he received a large price. The mining operations were suspended through fear of the Apaches."

Current Prices of Metals, Stocks, & Shares.

MINES.—The mining market continues depressed, nor can a favourable change be expected without a fresh accession of capital and confidence. The payment of the July dividends will supply the former, but the latter will be of slower growth. A still better organization, also, is required than yet exists in the lists indicating the value of mining shares. Dividend mines have receded in value, in common with the more favourite prospective ones, of which the capitalist will, probably, take advantage, sooner or later, but at the moment investments in every description are on a very reduced scale

In the metal market, Copper is in steady request, and firm in price.—Lead is very heavy.—Tin is unaltered in price; but the Board of Trade returns have caused it to be somewhat more enquired for, and a rise in price is anticipated: the tone of the market has decidedly improved.—Tin-Plates move off steadily: the exports for the first four months of the year amount to 401,000*l.* in value, against 313,000*l.* in 1850, and 221,000*l.* in 1849, the prices of 1849 and 1850 being rather beyond those of the present year.—Spelter, but little doing.

From Calcutta, we learn that the metal market continued very dull; the same from Bombay—excepting at both, perhaps, copper, in which some trifling sales had been made, and the price was firm. At New York, new sheathing copper and yellow metal were in demand; a good inquiry existed for English and Spanish lead; and iron had been extensively dealt in. At Hamburg, the lead market had undergone little fluctuation; copper was firm; and some dealings had taken place in Banca tin and zinc.

The price of gold in bars (standard) was 3*l.* 17s. 9d. per oz.; silver in bars (ditto), 5s. 0½d. per oz.; and new dollars 4s. 11½d. per oz.

Among the London imports have been—from Antwerp, 101 ingots and 31 casks of zinc, 27 casks of spelter, and 6 casks of copper ornaments; Ghent, 50 casks of zinc; Stettin, 250 tons of spelter; Singapore, 1281 slabs of tin; Havre, 1029 copper plates, 17 pks. of machinery; Ostend, 150 ingots of copper. At Hull—from Hamburg, 1312 plates of spelter, 25 casks of plumbago: Stockholm, 3857 bars of iron; Antwerp, 124 ingots and 10 cks. 3 cs. zinc; Gottenburg, 4816 bars of iron; Rotterdam, 224 pigs of copper. At Swansea—from Huasco, about 280 tons of copper regulus, and 278 bags of silver ore.

Esgair Llee sold 20 tons of lead ore, at 9*l.* 15s. per ton, on the 29th May.

East Tamar Company sold, on Thursday, 63 tons of silver-lead ore, at 14*l.* 4s., to the Tamar Smelting Company.

The Tamar Silver-lead Mining Company expect to sample to-day about 100 tons of rich silver-lead ore.

Great Wheal Baddern sampled 40 tons of lead ore on the 30th May.

At Cwmystwyth, the sampling of lead ore on the 2d inst. was about 60 tons. The mine is looking much the same as before, but the water on the surface is very scarce, causing a stoppage of part of the works.

The May monthly sale of tin from Wheal Trescoll amounted to 39*l.* 9s. 9d. There was a further sale this week; but we have not received the details.

A dividend of 20*l.* per share in the Lisburne Mines has been declared.

At Wheal Basset meeting, on Tuesday, the accounts showed—Balance last account, 1174*l.* 13s. 8d.; copper ore sold 6th March and 3d April, 5136*l.* 0s. 10d.; tin ores sold from the 27th March to 3d May, 1100*l.* 3s. 1d.; received of East Basset adventurers for costs prior to separation of sett, 666*l.* 10s. 6d.; and for materials since, 28*l.* 1s. 1d.; ditto of Grambler adventurers, 2*l.* 9s. 7d.=8107*l.* 18s. 9d.—To labour cost for March and April, 2037*l.* 3s.; merchants' bills, 796*l.* 6s. 4d.; lord's dues 1-15th, 415*l.* 14s. 11d.; cost in south mine for April, 80*l.* 15s. 3d.; dividend declared of 10*l.* per share, 2560*l.*: leaves balance to next account, 2217*l.* 19s. 3d.—the profit made on the two months being 2986*l.* 19s. 8d. The mine is going on in its usual prosperous way. Giesler's lode in the 60, 70, and 80 west is from 1 ft. to 20 in. big, and yields from 2 to 3 tons of good ore per fm. The 40 and 60 east is about the same in size and produce. On Williams's south lode east the 20, 50, 60, and 70 fm. levels are turning out from 1 to 2 tons of good ore per fm.; the lode is from 6 to 15 in. wide. On the great lode, the 100 west is now under a run of excellent ore ground they had some years ago in the 60 and 70, and great expectations held that the present returns will increase; the end will now turn out 3 tons per fm. On Carnkie tin lode the boundary shaft is sinking under the 55 fm. level, and is worth 20*l.* per fm. The various stopes and pitches throughout the mine are producing a fair quantity of ore.

At the General Mining Company for Ireland half-yearly meeting, on Monday, a dividend of 10 per cent. for the half-year was declared,—Mr. T. J. Quinton (the chairman) observing that there had been also a similar dividend for the preceding half-year, making a total of 35 per cent. of dividends paid out of the profits since 1848. Dr. Brady was happy to add, that they had also acquired some good property in that period: they were now employing 800 persons, and were incurring no debts or liabilities.

At the Perran St. George Mine meeting, on Wednesday, the accounts showed—Mine cost for Jan., 731*l.* 10s. 8d.; ditto Feb., 387*l.* 3s. 5d.; merchants' bills, &c., 389*l.* 3s. 5d.=1507*l.* 17s. 6d.—Copper ores sold March 27 (less 1-20th dues and income tax 119*l.* 9s. 6d.), 2341*l.* 15s. 11d.: shows a profit of 833*l.* 18s. 5d.; add balance from last account, 889*l.* 3s. 5d.=1723*l.* 1s. 10d.—By dividend of 10s. per share (580*l.*): leaves balance to next account, 1143*l.* 1s. 10d. They have 59 men and 11 boys employed on tutwork, and 62 men on tribute. One pitch at 2s. 6d., one at 3s. 3d., two at 3s. 6d., two at 4s., two at 4s. 6d., one at 5s., one at 6s., one at 6s. 8d., one at 7s., one at 10s., and one at 13s. in 1*l.* Hodges's shaft is sinking under the 20 fm. level in a good course of ore, and the other parts of the mine are without alteration.

At West Wheal Jewel special meeting, on Tuesday, it was unanimously resolved to increase the capital by the issue of 3715 preference shares of 1*l.* 10s. each, every holder of five shares in the present company to be entitled to five of them on payment of 10s. per share on the 24th July, subject to such further instalments as may be required until the whole 30s. is paid up, and to be entitled, before any dividends out of the profits are made, to a bonus of 1*l.* per share, and after that to be placed on an equal footing with the present shareholders as to dividends, &c, In case the whole number of 3715 are not taken up by the 24th July, the residue will be then offered, *pro rata*, to those who shall have subscribed.

At the Garreg Mine meeting, on Tuesday, the accounts showed a balance in hand of 814*l.* 14s. 1d. It was deemed expedient that a steam-engine be forthwith purchased, and the committee of management was requested to take the necessary steps for the erection of one. The agent's report, which is of a very satisfactory character, will be found among our Mining Correspondence,

At Trelyon Consols meeting, on Tuesday, the accounts showed—Balance of last account, 165*l.* 1s. 2d.; costs for three months, ending March, 770*l.* 11s. 5d. = 935*l.* 12s. 7d.—By tin sold, 432*l.* 14s. 10d.; copper ore sold, 211*l.* 6s. 7d.; carriage of ore, 7*l.* 7s. 5d.; call, 300*l.*= 951*l.* 8s. 10d.: leaving balance in hand, 15*l.* 16s. 3d. A call of 5s. per share was made.—At Wheal Venture the 32 west is again improving, and about 30 fms. from the shaft it looks well for tin, and water issuing out of the end. At Margery the adit level is driving to approach the junction of killas and granite. In the back two pitches are working, at 10s. per month.

At a meeting of Wheal Ennis adventurers, on Saturday, the accounts for five months to end April showed—Mine cost from December to April, 405*l.* 13s. 10d.; merchants' bills, 230*l.* 16s. 5d.; balance due to purser last account, 951*l.* 11s. 4d.=1588*l.* 1s. 7d.—By call of 5*l.* per share, 910*l.*: leaves balance against adventurers, 678*l.* 1s. 7d.; to pay off which, and for further prosecution of the mine, a call of 5*l.* per share was made.

At the Halamanning and Croft Gothall Consols meeting, yesterday, the mine was divided into 10,000 shares, of 3*l.* each, 2*l.* per share to be paid, and a call of 1*l.* in two months, if required. This, with the amount already expended will, it is expected, be sufficient to place the mines in a profitable position: 6000 shares are taken by the present proprietors, and 4000 are offered to the public.

A meeting of the Derwent Mines Company was held on Thursday, to consider the expediency of obtaining additional capital, to work the mines more effectually. We understand the money is to be raised by the issue of new shares, to be first offered the present holders, in proportion to the interest now held by them.

Various reports have been afloat for more than a week past respecting the progress making by the committee appointed at the last meeting of the shareholders in the Tincroft Mining Company, but we can trace them to no authentic source. We have reason to know that nothing definite has reached head quarters; we are, therefore, prepared to await the announcement from the committee themselves, that they are prepared to declare the result of their labours as soon as a meeting can be convened, rather than regard any of the idle conjectures afloat. The delay, assisted by the rumours, have, however, had the effect of dropping the price of shares to 4*l.* 10s. each, and a certain officer in the company's service does not escape the animadversions of many.

At Treleigh Consols, the winze from the 80 to the 90 fm. level is communicated, and the men put to drive the latter level; this will open good ground for tribute, and tend to improve the samplings. Other parts of the mine remain much as before.

At Treloweth Mine they are down preparing to drive a 45 cross-cut, and making preparations to sink to the 60. The lode in Harrison's shaft is 10 ft. wide, and the winze under the 12, west of shaft, is yielding ore enough to pay for sinking. The prospects as they deepen seem very encouraging.

At East Crowndale, on the 27th May, they put the engine to work, and are in fork to the 47 fm. level. Men seem in request in that locality.

At Lydford Consols, a water-wheel, which has been contracted for, will soon be erected at Wheal Adventure. The works progress satisfactorily.

At Tregorden, the lode in the 30 end is of a promising character, and some fine lead in it. No alteration in the 40 fathom level.

At East Wheal Leisure, the lode has been cut in the 27, east of the cross-course, 15 in. wide. In the 17 both ends are kindly; the western end is shortly expected to be holed to Taylor's shaft. The pitches are looking well; and, in about three weeks, 150 tons of copper ore are expected to be ready for sale.

The South Tolgus reports continue favourable. The best points driving upon are the 42 east on the south, which is producing 1 ton of ore per fm.; the 42 west on north lode, 2 tons of ore per fathom; and the 32, west on Youren's lode, 1½ ton per fm. The ground is favourable for driving, and the stopes are turning out well.

From the Nanteos Mines several improvements are reported. Taylor's shaft below the 40 is yielding 6 cwts. of lead ore per fathom; the 40 east, 10 cwts. per fm.; the 30 east, 15 cwts. per fm.; the 30 west, 12 cwts. per fm.; the 30, west from Taylor's shaft, 6 cwts. per fm.: 40 tons of lead ore were sampled on the 3d instant.

We perceive by the Great Polgooth report, that according to the opinion of Capt. Puckey, of Fowey Consols, and several agents, this mine, since the present company has had it, has increased in value at least 10,000*l.* They have discovered a lode in the bottom of the 84 about 1½ ft. wide, good for tin; the branch in the back yields good tinstuff. Both levels east and west continue as to size and productiveness. The winze under is rich for tin, and the pitch working last month at 7s. 6d. tribute is now set to six men at 4s. 6d. in 1*l.*; altogether, this level is turning out exceedingly well, and the utmost exertions are using to get forth the 96 under these rich bunches. The copper branch in the 76 fm. level, at Williams's, is working at 5s. 6d. tribute.

From Bottle Hill, the committee's first report has been received. The lode in the 12 west is represented to be from 5 to 6 ft. wide of tin, worth 100*l.* per fm., and 1000*l.* worth discovered. The 24 is stated to be 5 ft. wide, a good lode of tin and copper. Eight shafts are down, five to the 40 fm., and three to the 110, the wheel is in its place, and the drawing machine and stamps are nearly completed. The steam-engine will be ready in September. The committee conclude their report by expressing their confidence of being in a position to declare an early dividend out of nett profits.

The agent of the Kenmare Mines has arrived in town, to attend a meeting in the course of next week, when effective measures are to be taken to work this concern vigorously. The eastern engine-shaft is down 36 fms. from surface, to which depth a great quantity of rich grey copper ore has been extracted, and the lode was said to be holding good in the bottoms when suspended. At Croker's shaft, in the 36, the lode yields good quality ore. Other lodes on the property have good indications, which will, doubtless, be wrought after the shafts are down, and the levels and winzes communicated.

The Caradon United Mines, upon which a large sum has been expended, will shortly be set to work again; the sett, with all its machinery and buildings, having been purchased by Mr. T. Field, Mr. J. Pryor, and a few other gentlemen, well known in the mining world.

The Cockley Beck copper mine, Lancashire, is going to be put spiritedly to work, under the management of Capt. Benjamin Tucker, who has a force of Cornish miners with him. The lodes are embedded in a white flookan, with a fine gossan back, and leaders of ore, some of which have been analysed by Dr. Muspratt, of Liverpool, and found to produce 24·69 per cent. of copper, and which have hitherto sold at 14*l.* per ton.

The block of copper ore from Allt-y-Crib, stated in the mine report as weighing 18 cwts., and now lying at the Camden Town Railway Station, is intended, we are informed, for the Museum of Economic Geology.

We have it from good authority that the shares in Wheal Anna Consols have been subscribed for by, among others, some of the most influential members of the Stock Exchange. The tin of the district always realised the top price of the market, being of very superior quality; the dues are reasonable (1-20th), and a 38-inch cylinder engine is about to be erected upon the mine, the house being all ready to receive it. The report of Capt. J. Puckey, of Fowey Consols, is highly commendatory of this sett.

At the Botallack Mine account, last week, a resolution was unanimously passed that the underground agents should be sent to visit the Great Exhibition—one to go at a time, at the discretion of the purser.

A communication from Tavistock will be found in another column, announcing a singular discovery of copper ore east of Devon Great Consols boundary, and which is supposed to be their champion lode still traced in that direction. We have no reason to doubt the correctness of the intelligence, knowing the writer, and Wheal Emma being so productive near the eastern boundary of the sett. The origin of the discovery was the meeting with a "gate-post" of rich grey oxide of copper.

Messrs. Tregoning and Co., of Liverpool, are about to establish some extensive tin works at Llanelly: the same firm are owners of the Bissoe Tin Smelting Works in Cornwall.

Transactions have taken place this week in South Tolgus, West Tolgus, Bedford, Trelawny, Butterdon, Devon Consols, Merllyn, South of Scotland, Wheal Cupid, West Alfred Consols, Alfred Consols, and East Pool.

Besides the business done at the Mining Exchange, a share in Wheal Basset was sold in Cornwall on Tuesday for 410*l.* Other sales have been made in Nant-y-Car at 10*l.*; South Frances, 290*l.*; Tincroft, 4*l.* 10s. to 4*l.* 12s. 6d.; St. Aubyn and Grylls, 4⅞*l.*

In Foreign shares, Imperial Brazilian, United Mexican, Cobre, and St. John del Rey have changed hands.

The produce of the Kongsberg Silver Mines for the months of April and May was 2515 mks. 3 oz. fine silver.

From Linares we learn that the fires for the first time were lit on Thursday, 22d May, and the first charge of ore put in on the following day. On the 24th they weighed in 32 tons 5 cwts.: total in stock, 1040 tons 9 cwts. The lode in the 55, east of Wilson's, yields 6 tons of ore per fm. Two new pitches in the 31 and 45 fm. levels are turning out very well, and most of the others are reported to be yielding fair quantities of ore.

At the St. John del Rey meeting, yesterday, of which a full report is given in another column, a dividend of 1*l.* 10s. per share (16,500*l.*) was made, and 1650*l.* carried to the reserve fund (which now amounts to the sum of 16,650*l.*), leaving a balance in hand of 9341*l.* 17s. 4d. The nett profits for the 12 months' workings had been 35,879*l.* 12s. 8d. The average number of borers at work during 1850 were 236, and there is ample room for a larger number being employed. The number of Europeans in the company's service was 200. The increase of births was 6; the deaths 52, chiefly from diarrhœa and dysentery.

At the Kinzigthal meeting, yesterday, the report stated that all the mines which had been tried had disappointed expectations, with the exception of the Frederic Christian; here the lode had been opened 474 ft.—regular, kindly, and producing stones of lead ore; and from the 36 fm. level 3 tons had been raised, and appearances were favourable for a rich course of ore in depth. The ores on hand were valued at 350*l.* An immense lode of barytes had been discovered in the Clara Mine of very superior quality, traceable on surface 450 fathoms, and 24 ft. wide. There is a market there for large quantities; and it has been calculated by Prof. Maehrlen that by working it, in conjunction with lead from Fredric Christian, should it be produced in quantity, the manufacture of white lead would realise a profit of 30 per cent. Whatever may be the results, arrangements were making for the sale of the barytes. No expense is now incurred for a London management, and all the funds strictly applied to mining labour.

At the special general meeting of the Imperial Brazilian Mining Company, held yesterday, for the election of an auditor, Mr. Bloxland was elected by a majority of 61 above Mr. Cole.

HULL, THURSDAY.—Messrs. T. W. Flint and Co. state that business in mining shares is confined chiefly to exchange operations of one stock for another. Most of the better class of mining shares are firmly held, and there is no disposition to press sales. St. Aubyn and Grylls, and one or two other stocks are inquired for, but the demand is limited.

In Bank shares there has been little doing this week: the sales are confined to—Bank of Australasia (40*l.* paid), at 22¼ to 22⅝; Commercial of London (20*l.* paid), 25½; London and Westminster (20*l.* paid), 28; British North American, 44¼; Provincial of Ireland, 76½ 76; National of Ireland (32*l.* 10s. paid), 19 to 19½; South Australia (25*l.* paid), 25.

Dock shares are unaltered in price, being quoted as follows:—Commercial, 84; East and West India, 145; London, 113½; St. Katharine, 77½; Southampton, 15.

In the market for insurance shares the change is limited to a slight improvement in Guardian shares, which are quoted 56½.

In Steam Navigation shares, Peninsular and Oriental have been done at 70, ½, 71—being 21 pm.; General Steam Navigation (14*l.* pd.), 28½, ¾; Royal Mail Steam (60*l.* pd.), 76½ 6.

IMPROVEMENTS IN PROPELLING AND STEERING.—Capt. E. J. Carpenter, R.N., has patented a duplex rudder and a double screw-propeller; and if all the advantages claimed for it are really substantial, will command intense interest, and prove of real national value. It is said to give more command over the vessel, start and stop much quicker than by the present mode of propulsion, holds a better wind, with a great saving in fuel, and an increase in speed in the proportion of 21 to 13. A model may be seen in the Polytechnic Institution.

LEAD ORES

Sold at Aberystwith, on the 2d of June.

Mine.	*Tons.*	*Price per Ton.*	*Purchasers.*
East Logylas	110	£11 1 0	Walker, Parker, & Co.
Frongoch	80	10 10 0	Newton, Keates, & Co.
Level Newydd	10	9 14 6	R. Michell & Son.
ditto	10	9 14 6	Penpoll Company.
Sold at the Mine.			
East Wheal Rose	65	£13 16 6	T. Somers.
ditto	50	13 16 6	ditto
ditto	30	13 1 6	ditto

BLACK TIN.

Mines.	*Cwts. qrs. lbs.*	*Price per Ton.*	*Amount*
Wheal Trescoll	4 1 18	£54 0 0	£11 18 9
ditto	6 0 1	58 0 0 }	27 11 0
ditto	4 0 6	54 0 0 }	

COPPER ORES.

Sampled May 14, and Sold at Swansea, June 3, 1851.

Mines.	Tons.	Prod.	Price.	Mines.	Tons.	Prod.	Price.
Berehaven	128	10	£7 4 6	Cuba	41	21¼	£16 16 6
ditto	126	9½	7 0 6	ditto	27	14½	10 8 6
ditto	116	9½	6 16 0	ditto	16	29	21 4 6
ditto	100	9½	6 16 6	Knockmahon	109	8¾	6 6 0
ditto	96	10¾	7 13 0	ditto	104	9	6 14 6
ditto	81	10½	7 6 6	ditto	93	3¾	2 2 0
ditto	76	9¾	7 8 6	ditto	53	9½	6 11 0
ditto	31	9½	6 15 0	Australian	65	22½	17 4 0
Cuba	105	14¾	10 16 0	Kaw-aw	53	14	9 11 0
ditto	100	14¾	10 18 6	ditto	1	7½	4 17 0
ditto	95	14¾	10 10 0	New Zealand	53	11¾	7 18 6
ditto	60	17¾	13 0 6	Sydney	7	18¾	14 9 0
ditto	43	23¾	17 9 6				

TOTAL PRODUCE.

Berehaven	754	£5382	10 6	Kaw-aw	54	£511	0 0
Cuba	487	6067	16 6	New Zealand	53	420	0 6
Knockmahon	359	1928	11 0	Sydney	7	101	3 0
Australian	65	1118	0 0				

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
English Copper Company	257	£1958 13 4
Grenfell and Sons	289	1586 9 10
Sims, Willyams, and Co.	184	2682 12 0
Vivian and Sons	383	2956 13 0
Williams, Foster, and Co.	553	5317 0 0
Schneider and Co.	83	636 18 4
Low's Patent Copper Company	30	390 15 0
Total	1779	£15,529 1 6

Copper Ores for Sale 10th June.—Cobre, 108, 105, 67, 63, 62, 59, 28, 110, 97, 96, 44, 37, 102, 80, 76, 48, 35, 22, 51, 36, 16, 6, 81—Berehaven, 126, 122, 102—Knockmahon, 111—Kapunda, 34, 25, 12, 11—Cuba, 65—Port Lincoln, 42—Gloster Slag, 13 = 2092 tons.

AVERAGES.

	Produce.	Price.	Standard.
British	9	£6 11 0	£96 15 0
Foreign	16¼	12 6 6	87 18 6
Sale	11¾	£8 15 6	£92 3 0

Totals—British, 1113; Foreign, 666 = 1779 tons (21 cwts.)

AVERAGES OF LAST SALE.

	Produce.	Price.	Standard.
British	9 7-16	£7 0 0	£97 14 0
Foreign	19¼	14 10 6	85 16 0
Sale	16	£11 18 0	£88 5 6

Totals—British 805; Foreign, 1508 = 2313 tons (21-cwts.)

COPPER ORES.

Sampled May 21, and Sold at Tyack's Hotel, Camborne, June 5.

Mines.	Tons.	Price.	Mines.	Tons.	Price.
Tincroft	107	£2 14 6	North Pool	73	£6 0 0
ditto	91	2 12 6	ditto	66	3 10 0
ditto	71	3 10 6	ditto	56	1 10 0
ditto	67	3 2 0	ditto	40	1 12 0
ditto	66	3 6 6	Camborne Vean	80	3 8 0
ditto	60	5 18 0	ditto	55	4 12 0
ditto	58	1 14 0	ditto	54	5 8 6
ditto	55	4 3 0	ditto	27	1 14 0
ditto	43	2 6 6	Wheal Francis	79	3 2 0
ditto	33	6 16 6	ditto	58	5 2 0
Wheal Seton	72	6 18 0	ditto	28	3 4 0
ditto	67	4 16 0	East Pool	92	3 4 0
ditto	57	4 4 6	ditto	68	3 8 0
ditto	56	2 12 0	ditto	57	3 8 0
ditto	54	2 12 0	ditto	56	4 16 0
ditto	53	5 12 6	ditto	38	1 3 0
ditto	52	6 18 0	ditto	22	1 4 6
ditto	51	3 10 6	Condurrow	77	4 6 6
ditto	17	4 1 0	ditto	75	6 6 0
Pendarves	80	4 14 0	ditto	72	2 2 0
Wheal Basset	90	5 13 0	ditto	59	0 18 0
ditto	89	2 13 0	ditto	30	1 11 6
ditto	82	2 9 0	Fowey Consols	83	6 8 0
ditto	66	3 11 0	ditto	80	5 5 0
ditto	56	3 5 0	ditto	76	6 4 0
ditto	49	6 13 6	South Frances	63	5 15 0
ditto	46	5 4 6	ditto	61	10 16 0
ditto	38	16 1 0	ditto	45	6 5 0
ditto	37	16 1 0	ditto	44	4 8 0
ditto	3	7 2 0	ditto	20	11 8 6
East Wheal Crofty	109	5 18 0	North Roskear	108	7 8 6
ditto	81	5 14 6	ditto	63	6 16 0
ditto	80	4 14 0	ditto	44	6 18 0
ditto	67	4 12 0	Dolcoath	60	2 6 0
ditto	43	1 14 0	ditto	35	1 9 0
Dudnance	26	6 12 0	ditto	34	3 16 0
Longclose	15	3 18 0	ditto	27	8 4 0
North Pool	95	2 8 0	West FoweyConsols	63	6 6 0
ditto	85	4 2 6	Pendarves Consols	40	3 16 0

TOTAL PRODUCE.

Tincroft	651	£2213	18 6	North Pool	415	£1395	12 6
Wheal Seton } Pendarves	559	2626	15 6	East Pool	333	1058	17 0
Wheal Basset	556	3154	0 6	Condurrow	313	1057	1 6
East Wh. Crofty } Dudnance } Longclose	421	2094	4 6	Fowey Consols	239	1422	8 0
				South Frances	233	1724	8 0
				North Roskear	215	1533	18 0
				Dolcoath	156	539	7 0
Camborne Vean } Wheal Francis	381	1494	3 0	West Fowey Cons.	63	396	18 0
				Pendarves Consols	40	152	0 0

Average Standard.....£104 1 0 | Average Produce 7
Average Price per ton £4 11 0
Quantity of Ore .....4575 tons | Quantity of Fine Copper, 321 tons 7 cwts.
Amount of Money £20,863 12 0

LAST SALE.—Average Standard.....£103 6 0.—Average Produce..... 7½
Standard of corresponding sale last month, 103*l.* 10s.—Produce, 7½.

COMPANIES BY WHOM THE ORES WERE PURCHASED.

	Tons.	Amount.
Mines Royal	556	£2272 5 0
Vivian and Sons	779	3120 5 6
Freeman and Co.	696	2448 14 6
Pascoe Grenfell and Sons	705	3017 8 9
Sims, Willyams, & Co.	451	2837 16 0
Williams, Foster, and Co	924	4447 2 9
Schneider and Co.	317	1522 7 6
Mason and Elkington	147	697 12 0
Total tons	4575	£20,863 12 0

Copper ores for sale on Thursday next, at Andrew's Hotel, Redruth.—Mines and Parcels.—Carn Brea 813—Tywarnhayle 622—Wheal Buller 441—Par Consols 337—Alfred Consols 263—Polberro 184—Levant 155—West Wheal Treasury 142—Wheal Agar 115—Wellington Mines 103—Providence Mines 102—Botallack 84—West Wheal Seton 81—South Wheal Speed 46—St. Aubyn and Grylls 38—West Alfred Consols 37—Wheal Friendship 14—Relistian 7—South Wheal Fortune 6—East Wheal Treasury 5—Wheal Tehidy 5—Spearn Moor 4.—Total, 3594 tons.

Copper ores for sale on Thursday week, at Andew's Hotel, Redruth.—Mines and Parcels.—Devon Great Consols, Wheal Josiah, Wheal Maria, Wheal Fanny, and Wheal Anna Maria, 1608—West Caradon 378—Marke Valley 288—Fowey Consols 230—Wheal Friendship 217—Holmbush 210—Bedford United Mines 142—Phœnix Mines 140—North Wheal Buller 40—Helgnston Downs 27—Wheal Gorland 13.—Total, 3283 tons.

NOTICES TO CORRESPONDENTS.

GREAT CIRCLE SAILING.—A full description of Lieut. Ashe's improved nautical instruments, applicable, amongst other purposes, to great circle sailing, appeared in last week's Journal.

PENSANCE CONSOLS.—"A Shareholder," who complains of the absence of reports from this mine since October, is mistaken. Had he regularly perused the *Mining Journal*, he would have found that, with the exception now and then of a week's omission, they have been continued up to April 26th last, since which we have not received one. We always publish them when forwarded.

"G. H. C."—The soil of Gwinear rests principally on clay-slate, which is traversed by elvan courses and by intersections of greenstone. The surface, though not level, has but little undulation. The highest ground is at the south-western part, about 330 ft. above the sea level. The elevation at Carnhell Green is 40 ft. less.

"A. C."—The best channel to obtain the information will be of Robt. Hunt, Esq., Museum of Economic Geology; Edward Michell, Esq., Penpol, Truro; Messrs. John Taylor and Sons, Queen-street-place; Mr. Mathew Francis, John-street, Adelphi; or of Mr. John Richards, George-yard, Lombard-street.

"Inventor" (Truro).—It is true that the Patent Laws are now receiving the consideration of a Select Committee of the House of Lords, of which Lord Brougham is a member, but it is impossible to say whether or not any Act of Parliament will be passed this session; some very competent judges are of opinion that this much-wished-for consummation will not take place so early. Under the most favourable circumstances, supposing the Act to be passed forthwith, it is not likely to come into operation till the beginning of next year. This being the case, we cannot undertake to advise as to whether "Inventor" should delay taking out his patent or not; because, should he do so at once, and in a short time find the Patent Law amended and cheapened, he might feel regret at having expended money to no purpose; whilst, on the other hand, should he delay patenting, he might be deprived of his rights by some other party patenting or registering the invention, or something equivalent to it; indeed, this is the main consideration, which must swallow up the former; for if the invention be of any importance, it is worth while to pay many pounds rather than lose it. With regard to registration under the Utility Designs' Act, we have before stated the uncertainty that exists as to what is, and what is not, a registrable article, and although we consider the intention of the Act to have been to protect inventions, as far as the same could be shown and exhibited by a drawing, still the decisions of the judges say, nay—therefore, we should not like to take the responsibility of advising adversely; but this may be taken as correct, that if an invention is dependent on a peculiar shape or peculiar shapes, it is fit subject for registration under the Designs' Act, but it may be otherwise if the shape is not material. For further particulars you may apply to Mr. Campin, Strand, or other respectable patent agent.

"Inquirer" (Bristol).—The bill for the Government Inspection of Coal Mines appeared in the *Mining Journal* of the 27th July, 1850.

"G. A." (Rough Hay Furnaces, Darlaston), being about to erect a large hot-air stove, inquires what would be the best way to arrange pipes so as to take the greatest advantage of the expansion of the air in heating: the number of pipes to be 28 or 30, in four divisions, to turn the blast over four times, and then to have a temperature equal to melt lead. The query is, what number of the 28 or 30 pipes should be placed in each division, so as to take the air in its expanded state from each other?

"N. R." (Galway).—The next meeting of the British Association will commence on the 9d July, at Ipswich, under the presidency of the Astronomer Royal, Prof. Airy, F.R.S.

"J. W." (Brettel-lane).—Our correspondent forwards us a copy of a circular for raising 5000*l.*, in shares of 5s. each, for patenting a plan for producing what the inventor terms "wool mosaic," for the manufacture of dress-pieces, shawls, tapestry, carpets, rugs, curtains, table and chair covers, &c., and requests our opinion of the scheme. It modestly states that a 5s. share will realise an income of from 25*l.* to 100*l.* per year. The description of the manufacture may be very well, but it evidently is very complex and costly; and as there appears to be no Mr. E. W. George, solicitor, to whom parties are directed to apply for shares, in the law list, or any Mr. Wm. Kendall, Moscow-road, the referree, in the *Directory*, we look upon the whole as an impudent hoax, and an attempt to raise the wind by imposing on those sanguine and unwary people who are to be caught by a flaming, but in every sense false, prospectus. Why does not "L. L. D., the advertiser, inventor, and patentee of the best fabric extant," let us know who and what he is? That could not compromise his interest.

"J. E." (Newtown).—Galvanic electricity has been experimentally tried in healthily promoting the growth of plants, but we are not aware of the results, or the methods adopted in its application. We should recommend our correspondent to apply to the "Gardener's Chronicle and Agricultural Gazette," Upper Wellington-street, Strand.

"A Lover of Truth" (Tavistock).—We cannot see anything so puffy or objectionable in the reports of last week alluded to, as our correspondent seems to imagine. The writer is the acknowledged agent of the mine, and is responsible for the truth of his reports at the time. He sends up specimens, that the London adventurers may form some idea of what they are about, but advises them not to be too sanguine, for fear of a reverse. We must make a little allowance for the sanguine hopes of an agent; but we ever caution our readers not to depend on reports. Before purchasing shares they should make themselves well acquainted with the mine; and if not conversant with such matters, take the advice of some impartial persons on whom they can depend. With regard to the mine in question, we can only say, the reports objected to by our correspondent have been fully confirmed during the present week.

"Ajax" (Redruth).—The Minera Mines are near Wrexham, in Denbighshire: they are among the most ancient in North Wales, and are reputed to have yielded vast quantities of ore for ages past.

TREVOOL COPPER AND TIN MINE, CROWAN.—"Argus" (of Truro) informs us that the share-list of this mineral property, being situate in one of the best districts, has been filled up. All the shares that remain were taken by parties in the neighbourhood.

"W. R." (Leamington).—The subject is not lost sight of, but will be fully treated as soon as opportunity offers.

A correspondent from New York writes—"$50 gold pieces from California have been received in this city. The coin is not exactly circular, but an octagon, having on each side of the edge the following sentence:—'Augustus Humbert, United States Assayer of Gold, California, 1851.' It contains the figure of a spread eagle, with a scroll in his talons, on which is incribed 'Eureka.' Underneath are the figures and initial, '50d.,' of course meaning 50; and over the eagle are the following figures and abbreviation of the word thousand, as follows: '887-thous,' designating its fineness—viz., 887 carats."

WATER-GAS.—Dr. Andrew Fyfe's paper "On Resin and Water-Gas" was published in our Journal in July last.—See also some remarks on the subject on the 21st Sept.

Mr. Hopkins leaves London for Devon and Cornwall on Monday. Letters addressed to his office during next week will be regularly forwarded to him as usual.

Mr. David Mushet's paper on "Practical Men" shall appear in our next Journal.

ERRATUM.—In last week's Journal the amount realised by sale of ores from Wheal Golden should have been 692*l.* 11s., instead of 6992*l.* 11s.

*** We must impress upon our correspondents, the necessity of invariably furnishing us with their names and addresses—not that their communications should, consequently, be noticed, but as an earnest to us of their good faith.

*** It is particularly requested that all communications may be addressed—
TO THE EDITOR,
Mining Journal Office,
26, FLEET-STREET, LONDON.
And Post-office orders made payable to Wm. Salmon Mansell, assenting for the proprietors.

THE MINING JOURNAL
Railway and Commercial Gazette.

LONDON, JUNE 7, 1851.

The MINING JOURNAL is published at about Eleven o'clock on Saturday morning, at the office, 26, Fleet-street, and can be obtained, before Twelve, of all news agents, at the Royal Exchange, and other parts of London.

The demoralising, degrading, and worst of all robberies—the accursed truck system—is still flourishing in South Wales; and the FOTHERGILL'S, in spite of the decision of the magistrates against them at Aberdare, refuse to pay the fine, though, by another piece of chicanery, they have acknowledged they had been invading the law. Within three hours after the conviction, the trap-shop books were called in, and new ones issued, with the articles obtained entered as "goods" instead of "cash." This, however, shall not avail them; they are daily and hourly setting the law at defiance. There is a party, we are happy to see, who are determined to root out from among them this canker-worm, which eats into the very vitals of society, and we will, to the utmost of our power, assist them in their laudable endeavours. There was a numerous meeting held at Treforest, on Monday last, stated by placards to be for the purpose of taking into consideration the establishment of a truck-shop there. About 400 persons were present, and Mr. LEWIS THOMAS took the chair. In the course of an able speech, he observed that but a few months ago little did they think that a meeting of that kind would be convened in Treforest that evening. They had thought that whatever might happen elsewhere, this place would be proof against tyranny and despotism, whether exercised in the shape of the truck system, or in any other way; and that there would be no employer who would so far degrade himself and enslave his workmen, that they should be under the necessity of taking or leaving their hard earnings in a truck-shop; and that they would follow the example of that great master-mind of the iron trade, Mr. CRAWSHAY, and his spirited and intelligent sons, who paid their men fairly, and to whom the whole neighbourhood was indebted for its thriving and flourishing condition. He alluded to the endeavours of the Legislature to crush the monster, to the evasion of the law, and to the late deputation from Staffordshire to the SECRETARY of STATE; and observed that every mind that would take the trouble to examine the truck system in all its ramifications, must see that the system had a blighting and a withering effect on the community at large; and, if allowed to extend itself, it would very soon reduce this country to a species of serfdom just as bad as that under the dominion of the Russian bear.

The Rev. ROBERT PRICE exposed the meanness, the baseness, and the absolute dishonesty of the truck system in an able manner; he analysed and anatomised the doings at Aberdare most keenly, and stated that the company had refused to pay the fine: since that they had filed four fresh informations, and they had fifty still to come. Now, to prove they were not actuated by personal feelings, he (Mr. P.) might state that after the decision of the magistrates, the Aberdare committee had offered the company, that if they would give up the truck system, if they would pledge themselves to throw open their shops to the fair system of competition, they would forego their informations. This condition, which only sought fair play for the workman, the company refused; and instead of replying to it, the company altered the system of conducting the shop as to the form of payment, so as to evade the law in another shape.

Mr. TREMENHEERE showed that the system cost the working man 10 per cent. of his earnings, other experienced men made it 25 per cent., and Mr. M'CULLOCH 30 per cent. Mr. PRICE entered into calculations, showing that the "trap" added 9 or 10 per cent., at least, to the masters' profits. Besides this, the system of *espionage* was disgusting. At Aberdare they kept an information book, containing the probable earnings of the men, and this book was supplied by the company to the shop; then the actual expenditure in goods was entered in the transfer-book; they had also a red ink entry on tickets, showing the actual dealings in the shop. And thus every shilling expended by the workman had a sharp look out kept after it by the paternal and ever-watchful eye of the employer. If a man wanted a trip from home, or any other recreation, innocent or otherwise, the company would know not only where it was fixed for, but the amount expended. He (Mr. P.) appealed to the working men present, and asked if anything could be imagined more degrading than this worse than Turkish spy system, with its information book, transfer book, and its bloody-dyed red ruling. It was thus that the truck system bound down the working man in his expenditure. He related a fact of a man wanting 20s. of money owing him to bury his child, which was positively refused, but was allowed goods, which he sold for the purpose, of course at an enormous loss—a more indecent and diabolical act than this can scarcely be conceived.

Mr. LAWRENCE made a most lame attempt to defend the system, and to show that the "shop" had lowered the price of provisions in Aberdare considerably. The resolution proposed was—"That this meeting deeply regrets the establishment of a truck-shop at Treforest; and being convinced of the moral and social evils of a system which at once is unjust towards the tradesman, and deprives the working man of the benefits of a fair competition of the wages of his labour, pledges itself, by all legal means, to counteract its baneful effects." On being put to the vote, the show of hands was decided against it, which caused no surprise to the promoters of the meeting, as they knew that numbers of men from the works had been coerced to attend and vote for their masters, or lose their work. Nothing can more clearly show than this very circumstance the degrading tyrannising principles of the system; but there is a spirit at work by which a sounder one must be established, and the venomous hydra driven from the land. After a scene of considerable confusion, Mr. PHILIP JOHN emphatically said, that the decision of the meeting that evening would not have the slightest influence on the course of conduct which the Aberdare Anti-Truck Society had *determined* to follow out. It was stated that already 100 cases for information had been collected in Staffordshire alone.

The directors' report of the PENINSULAR AND ORIENTAL STEAM NAVIGATION COMPANY, inserted in another column, is a document of much importance to the commercial and travelling world, and, indeed, to all who take an interest in the welfare of the vast countries and fast increasing population and wealth of China and India, and other possessions in the east. Determined to keep pace with the spirit of the times, they have already extended steam communication between Calcutta, Penang, Singapore, and Hong Kong. A first-class steam-ship will be dispatched every month, commencing 20th August next, as an extra ship from Calcutta to Suez, calling at Madras, Ceylon, and Aden. They will also dispatch a first-class steam-ship monthly, after 1st September next, from Bombay, to meet that from Calcutta. At Aden the passengers and goods from Bombay will be transferred to the Calcutta one, to be conveyed to Suez. At Alexandria a steam-ship will convey them to Southampton, calling at Gibraltar and Malta. This plan, although probably not remunerative, is expected to draw an important amount of traffic from Western India *viâ* Bombay. Increased speed in the company's vessels has formed an important consideration in the deliberation of the directors, and their efforts have been successful. The *Hindostan*, *Oriental*, and *Pottinger* have afforded satisfactory evidences in increased speed—the two former having lately made the voyage from Suez to Calcutta in eight days less than stipulated in the mail contract. This object will still receive the continued attention of the directors. The revision and reduction in rates of passengers and goods, the adoption of auxiliary screw-propellers, now proved to be so important an adjunct, the resumption of the trade of the north coast of China, and the transit improvements throughout Egypt, are receiving the proper attention from the directors and the PACHA of EGYPT, who has, in this affair, completely identified himself with British interests. An act of unusual liberality may here be mentioned. When the Kaffir disturbances broke out at the Cape of Good Hope, the company offered to convey troops there *free of expense*, which offer was accepted, and within a week 500 rank and file were embarked, and on their way to that colony. Upon the whole, the report is most satisfactory, and is an extraordinary evidence of the rapid strides for the comfort and welfare of the human race, which take place from the appropriation of capital in experienced hands to objects of real utility.

SOUTHAMPTON AND ALEXANDRIA SERVICE.

	Tons.	Horse-power.
Ripon	1500	450
Indus	1400	450
Benlinck (under repair)	1800	520

SUEZ AND CALCUTTA SERVICE.

Hindostan	1800	520
Precursor	1600	500
Haddington	1500	500
Oriental	1600	500

BOMBAY AND CHINA SERVICE.

Singapore	1300	500
Malta	1225	450
Achilles	1000	420
Pekin	1180	430
Braganza	800	280

HONG KONG AND SHANGHAE.

Pacha	600	210

INTENDED FOR SUEZ AND CALCUTTA SERVICE.

Pottinger	1400	450

INTENDED FOR BOMBAY AND CHINA SERVICE.

Ganges	1300	500

CALCUTTA AND CHINA.

Erin	850	280
Lady Mary Wood	650	260

CANTON LOCAL SERVICE.

Canton	400	150

CONSTANTINOPLE AND BLACK SEA SERVICE.

Sultan	1100	400
Euxine	1100	400
Tagus	900	280

PENINSULAR SERVICE.

Montrose	650	240
Iberia	600	200
Madrid	500	160
Jupiter	600	260

VESSELS BUILDING (SCREW STEAM-SHIPS).

——	1200	300
——	1200	300
——	1800	400

Making a total tonnage of 31,555, and 10,310 horse-power.

The bill for the amendment of the COMPANY OF COPPER MINERS IN ENGLAND has passed the House of Commons—it is a melancholy fact, yet notwithstanding it is our duty to record it. From the circumstance of Lord REDESDALE, the chairman of the Committee of the House of Lords, having given his preliminary consent to it, we anticipate that all opposition there will be fruitless, and this "creditors' bill" become the law of the land. We have no doubt but that numbers of insolvent or dubious railway schemes will follow in their wake, and avail themselves of the advantages held out to them, which, if acted upon, will be one of the greatest premiums offered to tricking speculation in the present century. For a considerable time we supported the resuscitation of the Copper Miners' Company, but this was only so long as the proposition of the Shareholders' Committee was based on just and equitable principles. The learned counsel who spoke on behalf of the promoters did his duty towards his clients, although in a bad cause: the leading parts of his speech will be found in our last week's Journal, and it is, therefore, unnecessary to dilate on them at present. Although the point was carried, we do not believe, according to their own showing, that a case of a fine property being mismanaged was ever so clearly shown. Notwithstanding all that has been stated to the contrary, we are of opinion that the Bank of England has infringed its charter by becoming a trading company. The question of figures we will not enter into, that has already been sufficiently discussed; but it is the nefarious principle that has been broached that we would argue. By this bill shareholders are obliged to convert their stock to a considerable loss—in fact, according to their own statement, debentures and stock, amounting to 1,250,000*l.*, will be reduced to 300,000*l.*, being somewhat less than one-fourth of its original value; the company receiving back for 70,000*l.* what originally cost 700,000*l.*, being ten times the amount. Their estimated profit of 30,000*l.*, being about 6 per cent. on the new capital of 500,000*l.* To this monstrous proposition 11-12ths of the creditors have given their assent, we suppose imagining that it is better to save a fragment of the wreck than to let all perish. Probably they presume at the time the yare establishing a dangerous precedent for others, they are saving themselves. A century since, or above that period, the company were in difficulties, and freed themselves by the creation of a new stock; this was the first blow their credit received. It, however, has long since been forgotten, and is now merely a matter of history, which probably but few of the present generation are acquainted with. We are not so sanguine as to expect that this present resuscitation will be effectual for any lengthened period. A long tissue of recklessness and mismanagement has guided the government of the company. Their present difficulties, if the bill is carried out, are relieved; but we confidently believe that, before another septennium passes over our heads, a fresh application will be made to Parliament to relieve them from their liabilities. In the meantime, other bankrupt companies will require that the same law (not speaking of justice) shall be meted out to them. The Committee of the House of Commons have given their decision, and every company in a state of insolvency or bankruptcy, either through fraud, mismanagement, tergiversation, or the desire to "make things pleasant," can now demand the same relief. We congratulate the Shareholders' Committee on their success; but we cannot but express an opinion that such an ignoble triumph is more disgraceful than total defeat and utter discomfiture.

The GREAT EXHIBITION is NOW *un fait accompli*. Its success is acknowledged by all who have seen it; and the suffrages of some hundreds of thousands have declared it the most unparalleled exposition that has ever existed. The riches of the whole of the world are there displayed; and the eye is enabled to gaze upon one unrivalled *vista* of gorgeousness. The fabled scenes of the *Arabian Nights* are no longer a dream; and in sober England a fairy palace has arisen which eclipses romantic fictions of former days, and more than realises the golden visions in which the youthful imagination revelled. It was by many supposed that the purposes of the Exhibition were merely to show the products of all nations—in fact, that it would only be "a great bazaar." Such, we are pleased, is not the case. A series of lectures are to be given, as we noticed in our last, on mining processes, mineral products, and mineral manufactures from the various parts of the world. Lectures will also be given on machinery and other products in due course, illustrated by the articles exhibited. The lectures connected with mining have been intrusted to Prof. ANSTED, of King's College, who commenced on Monday with an introductory address in the Theatre on the general nature and condition of the materials of which the earth is made up. In this it was stated the knowledge of the structure of the earth was necessary to many useful purposes, more especially to agriculture and to mining. Geology, although it was a speculative science, had been found useful: by the illustrations here brought before the class it could be deduced to a certainty. Every one was aware that there were certain irregularities in the earth; that the sea could be sounded in some places, and in others were fathomless—in fact, that in Nature there was a regular system, which it was highly important to study. It would be found that in the old hemisphere the greatest portion of land runs from east to west; while in the new it was from north to south. If they looked over the Exhibition, they would find in several places maps, models, and diagrams, which illustrated this, and showed the irregularities of the mountains and the courses of the rivers. Two models he would particularly draw their attention to—that of part of Switzerland and the Isle of Wight, as well as several embossed maps in France, which showed them the irregularities of the earth. There might be mentioned the Alps in Europe with a great ridge, concluding with knife-like edges, and several others in many other parts of the world in every respect differing from that, but none so developed as in Europe. Within the last few years agriculture had made rapid strides; and it was necessary that the farmer should know the different soils, and how they were composed—not only the surface soil, but the subsoil. The upper was continually being destroyed, and a process was going on underneath to substitute the soil thus taken away. By the knowledge of the admixture of different earths, the agriculturist was enabled to obtain that which was necessary for the production of the several articles which he grew; and where Nature was not favourable, by a chemical and mechanical fusion the desired object could be attained. If we looked at the physical and political part of geography, we should find that England (a small island) was situated in the central point; and, by referring to history, it would be seen that her central position had raised her to her present high scale among nations. To civilised man the obtaining of a good supply of water was highly necessary; the knowledge of the soil in which to bore through to attain this object was of great importance. To miners the acquaintance with the strata of the earth was quite indispensable, either for coal or metalliferous ores—the former of which was generally found in parallel bands; the latter only in metalliferous veins. As they proceed further, they would see the necessity of studying, in which they would be materially assisted by the illustrations in the building.

On Tuesday, an interesting lecture on mineral fuel was delivered. Professor ANSTED first drew the attention of his auditory to the value of peat as a fuel. He then pointed out the various useful and valuable products which could be derived from it. The several species of coal were then taken: the first which he illustrated was Cannel coal, which was found both in Lancashire and Scotland. This was not so well adapted for household consumption as several others, as it contained too much gas; it was susceptible of high polish, and burnt with a clear flame. Of the bituminous coals there were several species found; those from the Newcastle district were called caking coal, from their liability to cake, and their requiring constantly stirring, in order to produce a draught. These were different to those produced in the Yorkshire district, of which the specimen from Barnsley was a good illustration. These did not cake; and it was better if they are allowed to burn out without being touched; at the present period this was an important fact to know, as coals brought to London by rail were largely entering into domestic consumption. A knowledge of their properties was both useful and necessary. The peculiarities of steam-coal were then described, showing that it differed both from the bituminous and Cannel coal—its qualities being somewhat between both. Another quality of coal was that called anthracite, which, although it required careful management, and great trouble to set on fire, yet, when once it became ignited, acquired a great heat, and was, therefore, useful for smelting purposes, and used much in the reduction of iron. By reference to the geological maps and sections, they would see that the various coal-fields in the several localities were dissimilar. The great importance of cheap fuel on commerce would be seen in the simple fact, that all our manufacturing towns were seated in the coal-fields. So, likewise, if they looked to the pottery district in Staffordshire, they would find that there had been manufactories established, not on account of the clay being there, but of the abundant supply of coal. Ireland was not so well supplied with coal as Great Britain; but, on the other hand, she had her vast and almost illimitable deposits of peat. England possessed greater advantages, both in the economical mode of working and the transport, than any other country in the world, and could, consequently, avail herself in a higher degree of the benefits arising from the extended use of her mineral fuel. Spain had the largest coal-field of any country in Europe, except Great Britain, but there were great disadvantages in working it; and the same might be said of France, Russia, and Austria. Belgium, which had smaller coal-fields, must be considered a far more important country in the production of fuel than either of the above. In the United States, it appears the area of coal was about 113,000 square miles; and British North America might be calculated at about 18,000. At present, the means of transport in these districts were very defective; but as the population increased this would be remedied; and in the course of some years it would exercise considerable influence on the trade and manufactures of the United

States. Many kinds of coal, when on board [illegible] could not be well stowed, were liable to breakage, explosion, and other accidents. To obviate in a great measure this the patent fuel had been [illegible], which went through a mechanical process, rendering it perfectly safe to carry, and, being cut in the form of bricks, easy to pack; at the same time, not so liable to break as coals in the ordinary way.

The model of a coal mine was then shown, the modes of working and ventilation at the same time described. The monster blocks at the western entrance were then examined. Attention was drawn to the one from Denbigh Hall, weighing 12 tons, which had been raised from the mine by the ordinary machinery. The coal from Staveley, the block weighing 15 tons, was remarkable, as showing the facility with which it could be sawed into bricks. The 10-ft. diagram of the several species of the seam was then pointed out, and its properties illustrated. Attention was drawn to the fact that exposure to the air injured in a degree, more or less, the several qualities of coal, and the salts of alumina were clearly shown. The block from Tipton, sent by Mr. ROUND, was then visited. This was encircled by the various tools employed by the miners in their perilous occupation. A brief summary of the different coal-fields was given, and the lecture terminated, the auditory being apparently highly gratified with the learned professor's labours. [The next lecture will be on iron.]

[FROM A CORRESPONDENT.]

We have always admired Prof. ANSTED and Prof. COWPER as lecturers, but we cannot help thinking that their labours will not be of so much utility as anticipated at the Great Exhibition. At present they are solely confined to their classes; and in proceeding from compartment to compartment, to observe the varied illustrations, are seriously interrupted by the moving mass. Individuals visiting the Great Exhibition go for the purpose of seeing such a collection of the products of the industry of every country, and of every clime, as they never saw before—the eye is charmed and fascinated, the imagination bewildered, and, having once entered the Crystal Temple, the whole day is but sufficient for a view of a tenth of its gorgeous contents. This, however, cannot be avoided, but great inconveniences will be remedied when the lecture-room is covered in, which is calculated to hold about 300 people, who can hear and learn without interruption. This will probably be the case on Monday next. A proof of the success of these lectures may be deduced from the fact that they are repeated on the two following days. There is, however, another description of lecturers, or teachers, whose labours would be attended with great advantages, could they be organised on a scale equal to the extent of the Exhibition, and similar to the attendants at all our present scientific institutions, who are ever ready to explain the details and uses of any object when the enquirer is at fault. A class of well-educated intelligent men, with urbanity of manner, and of sound practical knowledge in the several branches of art, manufacture, mineralogy, and general science in the different departments, stationed in various parts of the building, ready at all times to explain the numerous objects to the uninitisted, and give general information on every branch of art in the department of each, would be of incalculable advantage in conveying a just idea of the vastness of the undertaking itself, of the value of the mineral, vegetable, and animal creation, and of the great amount of human labour which has converted their products into the useful, the beautiful, and the wonderful they see around them. Short episodes on separate objects would remain fixed upon the mind, while a lecture on any subject cannot be less than an hour or an hour and a half, during which period we fear many an ear is listless; while the eye is wandering through the immensity of light and colour of art and nature, inviting it on every hand.

In the Court of Exchequer, on Monday last, a case arising out of the question whether stones are minerals, was decided in the affirmative, contrary, we think, to all former precedents, and the law established in previous similar cases. In the special case MICKLETHWAITE *v.* WINTER, arising out of an action of trover to recover the value of certain stones which the plaintiff alleged the defendant had dug out of an allotment in derogation of his rights as lord of the manor of Ardsley, in the West Riding of Yorkshire, it appeared that plaintiff's ancestors had been for a long time lords of the manor in question, and were entitled to all coals and minerals in a certain common, which was subject, however, to certain commonable rights. In the 33d of GEORGE II. the common was enclosed, and certain allotments made to the lord and the commoners—that to the lord being a compensation for his right to the soil, and for any injury he might be called on to make good to the other allotments caused by his search for coals and minerals. The defendant had dug a quantity of stones from his allotment; and the questions raised were—first, whether the plaintiff, as lord, was entitled to anything at all under the circumstances of the case? and next, whether stones were minerals? At the close of the arguments the court gave judgment in favour of plaintiff on both points. Now, not having heard the arguments, or knowing the customs of this particular manor, or the tenure on which the lord establishes his right, we cannot, of course, say the decision is wrong, but we believe that in previous cases a direct distinction has been made between a "mine" and a "quarry." Minerals have ever been considered to be the produce of a mine worked by shafts and levels, while surface workings open to the day, as stone and slate quarries, have been held *not* to be mineral. In the case under notice, if the custom has been for the lord to claim all the substrata of whatever kind, there is nothing wrong in the decision, otherwise it conflicts with former precedents, and tends to lead to litigation.

The directors' report submitted to the meeting of the St. JOHN DEL REY MINING COMPANY, held yesterday, a full account of which will be found in another column, is a highly satisfactory document; and while so many hecatombs of British capital have been swallowed up in the wild rage for gold seeking in distant lands without any return, it is gratifying to find one oasis in the desert, where a refreshing stream is still found on the surface, and where the adventurers are receiving, and may still hope in future to receive, a return for their investment. The Morro Velho property is stated never to have been in so really prosperous a condition as at present in all its various departments, and the mines themselves present an appearance for future workings, which will ensure regular dividends for years to come. There is one part of the report which, from want of space, we have only cursorily noticed, but which deserves some further remarks here: we allude to the comments of Dr. WALKER, who was sent out by the directors fully to examine and report on the state, health, food, clothing, lodging, and general treatment of the negroes, both belonging to the company and those hired from other slave proprietors, in order at once and for ever to set at rest the charges formerly made, that in order to enforce a large return the negroes were overworked, ill-fed, and in every way treated worse than the brutes. Dr. WALKER commences with an interesting topographical description of the district in which Morro Velho is situate; and although in the summer or wet season the heat is great, and during the winter, or what is called the dry season, the mornings are very cold, and a dense fog occupies the valley, so dense as to be felt like a drizzling rain, and causes a chilly sensation over the whole body, while the condensed moisture drops from the leaves, still, upon the whole, from the situation of the houses, and the general care bestowed upon the negro population, the spot appears to be an average healthy one. As to the treatment of the blacks, the report states they are well fed, well clothed, well lodged, with plenty of fuel for the fetching from the woods. It describes minutely the winter and summer clothing, the food, the hours of work, which are eight out of the 24, the general treatment which is excellent, the hospital and medical management; they have gardens, grow their own vegetables, keep pigs and poultry, and during the 16 hours when not on the mine they employ themselves as their fancy dictates. Throughout 42 pages of this interesting report it is shown that the negroes on this estate are well cared for, and, with the exception of being *free* men, appear to be much better off that many of our hard-working labouring population at home, and clearly prove that at least the rumours in circulations three years since are by no means applicable at the present time. One fact we must not omit to notice, that while in 1848 the number of patients in the hospital was 2435, and in 1849, 2159, in 1850 they amount to only 1349—a fact highly gratifying, and significant of a highly improved sanitary state of the establishment. Dr. WALKER accounts for the small number of births being exceeded by the deaths, from the great disproportion of the sexes. Of the company's and Cata Branca blacks there are two men to one woman, and of the hired blacks three men to one woman. This disproportion of births to deaths was used as an argument to prove that the negroes were overworked.

PLYMOUTH NEW LEAD WORKS.

The new lead-works in Sutton-road are now ready to commence operations. As this must prove a matter of some interest to our readers, we may state that they have been erected by Messrs. Sparrow, Hodge, and Co., whose spirited and persevering manner in all they undertake ensures the success likely to attend a business of this sort, so long wanted in the locality. The importance of public works of this kind has been long felt, for all the lead smelted at the Tamar Works, at Par, and also at Penpoll, near Truro, had to be forwarded to Bristol and London, to be there converted into sheet and pipe lead, and afterwards returned to the west of England for use. This need now no longer be the case; it can be manufactured at these new lead-works, effecting a saving of double freight, and all the time occupied in its transit to and fro. The quantity of lead raised in the counties of Devon and Cornwall has been more than doubled in the last four years, and is still on the increase, while mining enterprise at this moment is such that the new ground opening must considerably increase the produce for the ensuing year. It is also worth noticing that the port of Plymouth is admirably situated for importing lead ore from Spain, at a less freight than London, Liverpool, Bristol, or other ports: some advantage may be reckoned from that quarter. The works are close to the water-side, and are very spacious, and adapted for carrying on a very large trade; they were formerly for naphtha, and are now perfectly remodelled, with a different apparatus and machinery. No carriage inland is incurred upon the landing of lead, and for the transport inward of it, in a manufactured state, the Dartmoor Railroad passes in front of the premises.

We shall now furnish a brief description of the works:—On entering the mill-house, a spacious building 85 feet long, is a large iron pot, capable of holding 4 tons of lead ore, in which the metal is melted into a solid cake, and conveyed on to a series of rollers, about a foot apart, on an iron frame, which runs nearly the whole length of the building. It is afterwards conveyed over the rollers to the mill standing in the centre of the building, where it is flattened to the required thickness by a heavy cylindrical roller of great pressure; it passes under several times, till it is reduced to the required thickness for cutting into lengths suitable to be rolled into sheets. By means of reversing gear, admirably contrived and very powerful, the stone on which it rests being 7 tons weight, the cylinder works backwards and forwards, saving much time and labour. The engine is about 25-horse power, and the rolling mill a very good one, erected by Messrs. Burr, of Shrewsbury. The length of the boiler is 35 feet, diameter 6 feet, made of Low Moor iron, by Messrs. Maudslay and Field, intended for the South Devon Railway; the plates cost 27*l.* per ton; when filled it holds 18 tons, and is 13 tons weight. In the engine-room are two excellent high-pressure engines on the oscillating principle, made by Maudslay and Field, one of which has a very powerful fly-wheel of 16 feet diameter, made by Mr. Millward, of Newton Abbot; the other fly-wheel is only 11 feet. The engines are connected by an intermediate shaft with a couple of links, and either one or both may be worked as required. The feed pump drives cold water through a steam cistern, where it is heated to the boiling point; it then passes to the boiler—thus economising a great deal of that heat which under the old system was lost.

Next comes the pipe-making house, with a hydraulic machine for making pipes, the invention of Mr. Thomas Burr, of Shrewsbury, who has a patent for it: it is made by forcing the lead through a die to its required shape; it consequently make pipes to any extent in length, whereas formerly they were only short, the very longest being only 18 feet, and that very rare. Messrs. Burr have in the Great Exhibition a pipe 1500 yards long. The hydraulic press is worked by an engine, with a pair of pumps and a force equal to 600 tons, and when up, after the lead is propelled from the containing vessel, a force of 100 tons is required to bring it back again. The whole regulated by a beautiful set of valves, connected with an index, the necessity of which is shown by the fact, that if the rams were pressed beyond a certain point, after the melted lead was out of the container, something would instantly give way. The index is a rod of iron, in a brass case; it rises as the ram rises, but occupies very little space. The large mill-room is a depôt for the sheet lead when manufactured; the press-room for that of pipe lead.

PIG-IRON MAKING IN SCOTLAND.—No. III.

In a former article on Scotch pig-iron making, the quantity of produce from each furnace in Scotland is taken at 6000 tons per annum. Believing that this is a much larger produce than that which is got from furnaces in England, and that this may arise from additional quantity of air forced into the furnace, I now send you a note of the air thrown into the furnaces at Calder, where nothing but black-band ironstone is used. Two blowing cylinders, each 90 inches in diameter, a 12-ft. stroke, and making seven strokes per minute, gives 3020 cubic feet of air per minute to each of the five furnaces now going, and producing per week of seven days 720 tons.

At Coltness, from works where one-half of the ironstone used is black-band, and the other half clay-band, the blowing cylinder is 120 inches in diameter, with 10 ft. of stroke, and making 12 strokes per minute, gives 3120 cubic feet of air per minute to each of the six furnaces, and producing per week of seven days 700 tons.

At Castlehill, from works where clay-band ironstone alone is used, the blowing cylinder is 72 inches in diameter, stroke 7 ft., and making 14 strokes per minute, gives 2744 cubic feet per minute to each of the two furnaces, and the produce per week of seven days is 200 tons.

The coals used in the furnaces at these three works may be held as of equal quality, and the pressure at the tuyères at Calder is $2\frac{3}{4}$ lbs. per square inch, at Coltness $2\frac{3}{4}$ lbs., and at Castlehill 3 lbs. per square inch.

Calder should have shown a higher make in proportion to Coltness, but this may be accounted for from the latter works having four of the furnaces of a greater height than the former, and also better heating apparatus for the blast. The whole of the engines have fly-wheels, so that the length of stroke is quite certain.

AN ABSOLUTE SAFETY-VALVE.—Numerous as have of late been the contrivances for securing steam-boilers from explosion, by appliances termed "safety-valves," many of which have been found worse than useless, Mr. Nasmyth, of Patricroft, the patentee of the steam-hammer, has recently registered one under the above title, of the merits of which we have a high opinion. It appears to us really a *safety-valve*, cannot be tampered with by the engine man, or by possibility stick fast in its seat, has very little friction, and allows the actual pressure per square inch to be ascertainable at sight without a complication of levers, always so objectionable. It consists of a metal sphere working in a brass seat, within a pillar fixed on the boiler, and covered with a hemispherical head, perforated to allow of the escape of steam. From this ball descends a connecting rod loaded at bottom by circular weights, according to the pressure at which it is intended to work the boiler. To the bottom weight is attached a cylinder of sheet-iron, which descends a few inches below the surface of the water, and has a row of holes above to prevent the accumulation of steam. The ebullition of the water acting on the cylinder keeps the weight in incessant motion, and when the steam is near the blowing-off point there is no friction to be overcome, and the valve is a perfect self-regulator. The weights can only be altered and arranged within the boiler, and consequently cannot be tampered with by an attendant; and, from its simplicity, and almost infallible mode of action, we think there is little doubt of its being generally appreciated.

SMITH'S PATENT SELF-ACTING DAMPER REGULATOR.—The appreciation of this damper regulator, patented in 1847, appears to be greatly extending, and bids fair to work a complete revolution in that department of the management of steam-engine boilers to which it relates. It is simple in construction, and sure in operation. There is a U pipe, each leg being about 4 feet long, filled with cold water. At one end is fixed the apparatus working the damper. It consists of a shaft with the large pulley keyed on, working through a cast-iron box about 16 in. square; this shaft is turned by a small but powerful chain attached to a plunger in the box; under this plunger is placed a sheet of India-rubber, which makes it impossible for a drop of water to escape, and yet is so extremely sensitive that it yields the instant the pressure is let on the water; the plunger rising by a chain, as we have said, turns the pulley shaft, and so shuts the damper. The steam is admitted to the U pipe through a small brass valve at the opposite end, which valve is governed by a small plunger, and connected to the same lever. This small plunger is weighted to the required pressure, when it instantly opens the valve and allows the steam to pass; the presure on the water expanding the India-rubber, lifts the large plunger and works as described. The instant the pressure falls below that to which the small plunger is weighted it descends, and the valve, of course, closes, and a contrary result follows; and thus the steam is kept at one regular height, and an immense waste of fuel prevented.

MINING IN CORNWALL AND DEVON.

BY CAPT. CHARLES THOMAS, OF DOLCOATH MINE, CAMBORNE.*

Induced by the hope that this lecture will be followed by many others of a similar character from persons in this neighbourhood, who, I know, have had long and extensive opportunities of observing the phenomena presented in profitable as well as unprofitable mining operations, I have aimed principally at making this an introductory one, and, in a great measure, a record of my own observations. I have long thought that the deposition of metallic ores has been regulated by some natural law, and that there exist some indications by which a careful and experienced observer may anticipate the results of mining operations in any specific locality with a very great degree of probability. We know the results of carefully recorded observation as it respects other natural sciences. The planetary motions, to the superficial observer, are without order or regularity; but the astronomer knows that there is no movement among these bodies, but in obedience to the immutable laws of gravitation. From observed effects alone he is enabled to ascertain the existence, magnitude, and exact position of worlds previously unknown. Much has been done, also, towards bringing order out of apparent confusion, in reference to general geology. And who will say that the phenomena presented by the lodes and cross-courses intersecting certain districts are not quite as indicative of general laws as anything connected with geology or planetary movements? I premise a concise historical statement of mining in Cornwall and Devon, before I proceed to lay before you what has been my principal design in this lecture—the results of my own observations during the last forty years. Tin mining, there is little doubt, has been carried on in Cornwall for at least 3000 years. Instead, however, of adducing the historic proof on this subject, I refer you, with great pleasure, to Mr. Smith's *Religion of Ancient Britain*, a work replete with valuable information on this and many other highly-interesting subjects. The process of mining till within the last 150 years consisted principally in washing the gravel of our moors and valleys, usually called streams, and in excavating lodes near the surface. By means of adits, man and horse engines, and small water-wheels, even then nearly every lode now known in the county had been discovered, and every one containing tin, in however small quantities, was partially excavated. The origin of lead mining in Cornwall is unknown to me.

Copper mining is of comparatively recent origin. Till within the last 150 years the value of copper ore was unknown to the Cornish miner; but on its value becoming known mining assumed a new character. Deposited generally at greater depths than tin (no copper ore having been found in streams), more powerful machinery was required both for the purposes of draining the water and drawing up the ores. Newcomen's steam engine, brought into public use about the year 1712, furnished the power just then required. One of them was subsequently employed to drain Wheal Gerry, and other mines in this neighbourhood. About the year 1770 Newcomen's was superseded by Bolton and Watt's engine, which was soon after introduced into this county. By the enterprise of our adventurers, stimulating and encouraging the skill of our engineers, valuable improvements have since been made, and this engine now, as used in our Cornish mines, has attained a degree of perfection and efficiency perfectly unrivalled. Some of our deepest mines have already been worked to a depth of more than 300 fms., and the power of the improved Bolton and Watt's engine is sufficient to drain and draw from much greater depths than any yet attempted. The two principal remaining impediments to the profitable working of mines much deeper than is done at present, arise from the labour of ascending and descending, and the high temperature existing at great depths. The former of these impediments has been removed in two of the Gwennap mines by the employment of steam-engines, with suitable apparatus for letting down and drawing up the miners; this has been done in a very efficient manner by the skill and perseverance of one of our best engineers (Mr. Michael Loam). The other arises, in a great measure, from a want of proper ventilation; the high temperature and impure air often found at the bottom of deep mines sensibly affect the miner's health, and enervate his strength to such a degree that, in some places, the labour of two men is required to perform the ordinary work done by one. The interests of the adventurers, as well as the humanity of the philanthropist, would find in the removal of this impediment an object worthy of their most serious consideration.

The greatly extended scale of mining operations in Cornwall and Devon during the last 50 years more especially, both in depth and in different localities, has furnished means of observation which could not fail to be highly beneficial, if the knowledge acquired by individual experience could be collected and made known to the mining population generally. There appears, however, to be great reluctance on the part of many miners of great experience to diffuse, gratuitously, for the benefit of others what they have obtained by long and laborious research. Hoping that my example, however humble it may be, may have some effect in removing that selfish concealment, and eliciting the knowledge of mining phenomena that may have been acquired, for the common benefit, I now proceed to lay before you the result of my own observations, carefully made, more particularly during the last 20 years. I have never had in view the construction or support of any speculative theory, but have endeavoured, soberly and carefully, to collect and arrange facts for the guidance of practical miners. My judgment having been formed and confirmed by repeated observation, and the testimony of other experienced mine agents, I solicit, with some degree of confidence, your earnest attention to the following statements. Some of my audience have had great experience in mining, and if any statement I shall make is contrary to their own observation, I shall feel thankful for correction. On my young friends, whether already captains, or looking forward to filling such offices (which I have little doubt some of you will obtain when I and those of my age shall have been laid aside), I again earnestly press the importance of careful observation and mutual communication.

In this introductory lecture (as I regard it), I shall direct your attention to *three* great leading features of profitable mining phenomena (for that alone is worthy the name of mining). These are the geological character of the locality, the general contents, appearance, and size of the lodes, and their bearing or direction. The facts respecting these that I am about to lay before you have been so universal within the sphere of my own observation, that I have adopted them as rules, and my experience has furnished no exception where these three features unite.

First, as to the geological character; and here, it is more easy to say definitely in what strata a profitable mine will not be found, than to say where it will. Hitherto, no profitable mine has been found for tin, lead, or copper, in what I beg leave to distinguish by the term, *primitive granite*. I shall aim rather at being understood, than being scientific. This is commonly known here by the name of moorstone, and to the west of Hayle another variety of it is usually called whetstone; it is hard and compact, and may be cleft in straight lines as we see it used for building purposes. It is found in most of our high hills with projecting tops, such as Carn Marth, Carn Brea, Carn Marnellis, Carn Entarl, the highest of the western hills; the Caradon hills, Kitt Hill, Rough Tor, and Brown Willey. It is commonly found, too, in the central parts of granite districts, and where there are no projecting tops, at no great depth below the surface. The east part of Crowan, a large portion of Suithians Mabe, the Gosmoor, Bodmin Downs, and Dartmoor are granite districts of this character. At the sides and flat bases of such hills, as well as in the hollows between high hills, and the margins of granite districts, another kind of granite is commonly found, which I shall notice hereafter. In this primitive granite, no mine of any kind, yielding a profit, has hitherto been discovered. It may be a good *substratum*, but other strata must be found for profitable mining. [*To be continued in next week's Mining Journal.*]

WEST WHEAL ALFRED (St. Erth, near Hayle).—A survey has been held at this mine for setting the work to build an engine-house to receive an 80 in. cylinder steam-engine, which is to be got on with all speed, and give the concern an effectual trial. This mine ceased working about 25 years ago; it had yielded considerable quantities of copper ore, and is in a good locality, but it was then drawing not only its own water by two small engines, but that of the adjoining mine gratis. The lodes are supposed to be those of Great Wheal Alfred and Herland mines. The concern is now placed under the superintendence of Capt. Thomas Richards, of Hayle, and it is considered that the spirited adventurers will be amply remunerated for their outlay.

RAILWAY CALLS.—The amount falling due in June is 237,500*l.*, of which 80,000*l.* belongs to a foreign company. In June, last year, the amount was 563,445*l.*; in June, 1849, 3,344,852*l.*; and in 1848, 2,277,674*l.* The total amount called in the six months of the present year is 2,338,719*l.*, against 6,215,092*l.* to the same date in 1850, and 11,289,782*l.* in 1849.

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* A lecture delivered at the Camborne Institution, April 23, 1851.

Transactions of Scientific Bodies.

MEETINGS DURING THE ENSUING WEEK.

MONDAY	Geographical—3, Waterloo-place	8½ P.M.
TUESDAY	Medical and Chirurgical—53, Berners-street	4 P.M.
WEDNESDAY	Geological—Somerset-house	8½ P.M.
	Literary Fund—73, Great Russell-street	2 P.M.
THURSDAY	Royal Society of Literature—4, St. Martin's-place	3 P.M.
FRIDAY	Astronomical—Somerset-house	3 P.M.
	Royal Institution—Albemarle-street	8½ P.M.

GEOLOGICAL SOCIETY.

May 28.—D. SHARPE, Esq. (vice-president), in the chair.

The following communications were read:—

1. On the Geological Structure of the Mountain Range of Western Persia. By W. K. LOFTUS, Esq., F.G.S.

2. On the Remains of Fish in the Silurian Rocks of Great Britain. By J. W. SALTER, Esq., F.G.S.—After explaining that some few fragmentary specimens collected from the Silurian rocks, and formerly supposed to be the remains of spines or scales of fish, are decidedly referable to other organisms, and having stated his reasons for regarding the only other fossil that bears on the subject as having, most probably, been originally derived from a neighbouring but distinct rock, the author observed that there remained no well-authenticated occurrence of the remains of fish in strata more ancient than the upper beds of the Aymestry limestone. In conclusion, the author remarked that, although as yet the lower Silurian rocks had afforded no osseous remains of fish, yet a few, highly phosphatic, and probably coprolitic nodules, discovered in the Bala limestone (a rock far down in the Silurian series), might probably bear evidence to the former existence of fish in the ancient Silurian sea.

3. On the Elevation of the Malvern Hills. By H. E. STRICKLAND, Esq., F.G.S.—The author remarked that, from previous observations, it was known that the syenitic ridge of the Malvern Hills forms a part of a great line of dislocation, extending for at least 120 miles, from Flintshire on the north to Somersetshire on the south. This line of disturbance forms the eastern boundary of that vast region of elevation which encloses the whole of Wales and part of southern Ireland. The principal movement causing this elevation took place between the carboniferous and triassic epochs. The syenitic rocks of the Malverns appear to have been elevated in a solid state at an early period (prior to the deposition of the Caradoc sandstone), and at a later period (together with the Silurian, Devonian, and carboniferous strata resting upon them) were further elevated and dislocated by volcanic forces, which not only fissured, but faulted this immense mass to an enormous extent—at least 1300 or 1400 feet being the amount of dislocation between the two sides of the great fault. The western side of this fault was upraised, whilst the eastern remained comparatively fixed and rigid. Mr. Strickland showed that, as the fault-line running along the eastern side of all the disturbed and elevated district, must necessarily dip towards the eastern or down-cast side, the surface of the fault would act mechanically as an inclined plane or wedge in reference to a vertical uplifting of the strata on the west, and would force them over to a certain distance in a lateral direction, and thus give rise to the foldings and contortions of the strata observed on the western sides of the Malvern and Abberley hills. Traces, also, of the action of plutonic forces in the neighbourhood of the Malverns were noticed in detail. The author concluded by observing that the elevated tract of the Cambrian and Herefordshire area had become dry-land, whilst the eastern or downcast area remained beneath the sea. On the bed of this sea the triassic lands and marls were deposited, whilst its waves, beating against the cliffs of Malvern, formed accumulations of conglomerates, such as those of Rosemary Rock and Woodbury Hill. Other deposits, probably, were accumulated over this area, but, together with the highly elevated tract east of the line of fault, the whole have since been extensively denuded by long-continued atmospheric and aqueous agencies, and reduced to the present level of the country.

Papers to be read June 11th:—1. On the Permian Strata at Astley, Lancashire; by G. W. Ormerod, Esq., F.G.S.—2. On Fossil Fish from the Deccan, India; by Colonel Sykes, F.G.S.—3. On the Physical Evidence of an Arctic Climate during the Formation of the Erratic Tertiaries of Great Britain; by J. Trimmer, Esq., F.G.S.

THE GREAT MODEL OF THE EARTH IN LEICESTER SQUARE.—This magnificent structure, which has been erected at the sole expense of Mr. Wyld, M.P. the geographer to the Queen and Prince Albert, was opened on Monday last for public inspection. The diameter of the model is 60 ft.; the girth, or circumference, 188 ft.; and the extent of its surface, 10,000 ft. The scale upon which the earth's surface is represented is ten miles to an inch horizontal, and one mile to an inch vertical. There is no writing on the model; the land is of as natural a tint as possible to represent the temperature of the various zones, and the sea is coloured blue. The earth's form, as a whole, is shown; its general aspect, the relative quantity and positions of its several parts, the bearing of its hills, the flow of its great waters, and the seats of its rich dales and barren wastes. The volcanoes are distinguished by their fiery red tint; and those mountains within the range of perpetual snow are vividly represented in the frosty glittering garment with which Nature clothes herself in these ice-bound regions. The relative heights of the several mountains are given, and the course of the rivers may be distinctly traced. The top of the globe is made the north pole, and the bottom the south, without any regard being paid as to what is known as the inclination of the ecliptic. The spectator enters at the south pole. In the first gallery nearly the whole of the southern points of Africa and South America are seen, together with the Australian archipelago. The gallery above this looks upon the Equator and the countries adjacent thereto. The third gallery opens upon the Pacific and its numerous islands; while the fourth shows us that portion of the globe best known to us as the abode of civilised men. The principal towns are marked out with considerable precision; and the observer who possesses the slightest geographical knowledge is enabled, at a glance, to discover any particular locality, and follow the course of the hardy navigators of all countries who have ploughed the trackless waste. At the Geographical Society, the President delivered a congratulatory address to Mr. Wyld on his stupendous undertaking; and when we consider the vast amount of labour and expense which this has entailed on that gentleman, together with the facilities it affords for a correct study of the world's surface, we most cordially agree that all praise is due to Mr. Wyld for his energetic exertions, and at the same time express a hope that the public will, by their approbation, recompense him for the enormous outlay which he has incurred. The circular corridor, which surrounds the lower part of the globe, is tastefully hung with maps and charts of a most valuable description, and the walls and pillars decorated in arabesque painting, being exact copies from some of the ornamental work in the Alhambra. Access to this is given as well; so that even those who lounge may learn. To our thinking, the Great Globe holds a high position among the many wonders which the year 1851 has produced.

SUPPLY OF THE METROPOLIS WITH PURE SOFT WATER.—After all the schemes proposed, during the past 20 years, for supplying London with water of a more pure character than is received at present—after all the investigations by Committees of the Houses of Parliament and scientific men, and, when alarmed by the cholera, the appointment of Boards of Health, of which the above subject was one of their most paramount duties—we appear to be as far from improvement as ever; and the Government have now thrown overboard all the labours of their own organ of the above-named board; and the subject is to undergo a thoroughly fresh investigation before a Committee of the House of Commons. As after going through this ordeal, it is to be hoped that sufficient knowledge will be obtained for the immediate adoption of the best plan which can be proposed, we are glad to observe the formation of a new company, under the title of the "Metropolitan Soft Water Contracting Company," provisionally registered in November last, who have had a survey made of the numerous exhaustless springs and affluents in the neighbourhood of Farnham, in West Surrey, which can with the greatest facility be collected into one volume, far exceeding all the requirements, public and private, of the vast population of London and its environs. This has been confirmed by reports of the Board of Health, Hon. William Napier, Mr. Rammell, Mr. Simon, and the company's engineer, Mr. Bateman; and it is confidently asserted that one-half is now wasted through the intermittent system, which would be avoided by the company's proposed plan of having the mains always charged at high service without extra cost to the consumer—a plan instantly available in case of fire, and which will supersede the use of all cisterns, water butts, &c., and secure health, cleanliness, and economy. We are informed, from sources on which we may rely, that a most influential body of gentlemen are engaged in this undertaking, who have so far borne all the expenses personally; and from among whom, as soon as a directorate is formed, their names will be made public. The capital is 2,000,000*l.*, in 80,000 shares, of 25*l.* each; and to us it appears that the proposed mode of remunerating the proprietors for the capital embarked, shows the promoters to have a legitimate object in view, and not the mere formation of a company for the purpose of share jobbing. It is proposed to limit a fixed dividend to 5 per cent., with an equal division of further profits between rate-payers and the company. All profits arising from surplus water to manufactories, extra services, &c., to be also similarly divided; and the Government to have power to take all the company's rights, plant, works, &c., at 25 years' purchase of the nett dividends at the time.

ASTOUNDING CURE OF THIRTY-FIVE WOUNDS BY HOLLOWAY'S OINTMENT AND PILLS.—Extract of a letter from Mr. Jeremiah Reed, of Molong, near Sydney, dated September 25, 1848. "To Professor Holloway—Sir,—I owe a debt of gratitude to you for my almost miraculous cure by the use of your ointment and pills, after seven years' intense suffering, caused by exposure to wet and cold. When I commenced using your remedies I had already expended upwards of £300 in other medicine and advice, without any benefit, and had 35 ulcers on my body, a dreadful headache, and pains all over me; but your ointment and pills have cured me, and I am now enjoying excellent health."—Sold by all druggists, and at Professor Holloway's establishment, 244, Strand, London.

ST. JOHN DEL REY MINING COMPANY.

The twenty-first annual meeting of shareholders was held at the offices of the company, Tokenhouse-yard, yesterday.

JOHN DISTON POWLES, Esq., in the chair.

Mr. ROUTH (the managing director) having read the notice convening the meeting, the CHAIRMAN read the directors' report as follows:—

DIRECTORS' REPORT.

On the 29th Nov. last the directors declared a half-yearly dividend on the shares in this company—being the 17th, at the rate of 30s. per share, payable the 9th Dec.; and at the same time they appropriated 10 per cent. on the amount thereof to the reserve fund. The monthly produce of gold at Morro Velho, from the 1st March, 1850, to the 10th March, 1851, has been as follows:—

March, 1850	24,126 oitavas	November	22,257 oitavas
April	22,167 „	December	21,218 „
May	22,484 „	January, 1851	23,798 „
June	20,750 „	February	25,322 „
July	21,218 „		268,593 „
August	23,443 „		
September	21,196 „	March (10 days)	10,065 „
October	20,614 „		
		Total oitavas	278,658

The produce of the 12 months ending February, 1850, was 270,488 oitavas.

It will be observed that the preceding statement of the produce includes the first 10 days of March. This arises from the circumstance of the packet (now that the communication is effected by steam) leaving Rio Janeiro at a later date than has previously been usual.

The nett profit on the working the mines for the past year has been .. £35,879 12 8

The number of tons of ore raised in the year ending 31st Dec. last was 67,106

The number of tons raised in 1849 was 67,336

The extent of stoping ground laid open on the 31st Dec. last was 811·25 fms.—in the

Bahu Mine	386·45 sq. fms.	Gamba Mine	75·00 sq. fms.
East Quebra Panella	33·33 „	Cachoeira Mine	288·97 „
West Quebra Panella	27·50 „		
		Total	811·25 „

On the 31st December, 1849, it was 690·05 square fathoms.

The amount of profit made from the 1st March, 1850, to the 28th Feb., 1851, including 10 days' produce of March, having been carried to the credit of profit and loss account, leaves that account in credit, after paying the half-yearly dividend, due the 9th Dec. last, and passing 10 per cent. to the credit of the reserve fund, the sum of £27,491 17 4

Out of which the directors have now to declare a half-yearly dividend of 1*l.* 10s. per share, being 16,500*l.*; adding, at the same time, 10 per cent. thereon to the reserve fund, 1650*l.*—making 18,150 0 0

Leaving to the credit of profit and loss ..... £ 9,341 17 4

The amount of nett profit for the past year has not been equal to that of the preceding year, for which there have been two causes—the advance which has taken place in the rate of exchange in Brazil, and the expenditure on some important works essential to the advancement of the concern, which are particularly pointed out in the documents contained in the Appendix.

The supply of ore has been generally abundant. The extent of mineral ground opened out continues every year to be enlarged: it has been increased in the past year 121 fms. The average number of borers at work during 1849 was 217. The average number at work during 1850 was 236. It is by this description of labour that the quantity of ore extracted is regulated; and there is ample room for the employment of a much larger force in this department. The average standard of the ore has hardly varied from that of last year, as will be seen by the reduction report.

Capt. Treloar, in his report, says—"That although some changes had taken place in the underground workings, the prospects of the mines were as favourable as ever, and that the means of extraction are much improved, both in the facility of drawing and cheapness;" and Mr. Keogh, in his letter last received, dated 8th March, says—"I am glad to be enabled to inform you, that the mass of quartz which had overspread the bunch appears to be diminishing, and I hope ere long may disappear altogether." And on the 29th March he writes—

"*Cachoeira Mines.*—You may recollect that several months ago I informed you that a serious deterioration had taken place in this lode; it gives me much satisfaction to be enabled now to state, that, according to the reports made to me by Captain Treloar and Capt. Tonkin, these unfavourable symptoms have completely disappeared in the Middle Cachoeira, and that important portion of the lode is now as good as ever it was."

By the superintendent's and other reports it will be seen how many new and valuable works have been completed during the last year—particularly Hurry's inclined plane, second hauling machine, a new and most valuable aqueduct, a new set of stamps of 24-heads, &c.—and how many additional ones are now carrying on to increase the facilities of working and the amount of the produce.

In the report of last year the directors informed the proprietors that they had engaged Dr. T. Walker, one of the physicians of the forces, a gentleman of great experience, to proceed to Morro Velho, to enter into a full investigation of all the circumstances attending the condition of the negroes—as to their health, food, clothing, and in all other respects, and to make a report thereon to the board. This gentleman has executed his commission with great care and circumspection. A copy of his very interesting report will be found in the Appendix. It will be seen by the details contained in it, that no pains are spared for the good, morally or physically, of the negroes in all respects, and that the imputations which had been cast on the parties under whose care they are placed at Morro Velho have proved to be wholly unfounded.

The European population in the company's establishment having been found to have increased, including men, women, and children, to upwards of 200 souls, the directors determined, during the last year, to engage the services of a clergyman for their benefit. Hitherto divine service has been performed on the establishment on Sundays, for the use of the Europeans, by the officers. The directors have often contemplated the making more effectual provision for the maintenance of religious service, but their attention was more especially called to it last year, by a representation from the superintendent that it was highly expedient to provide a school for the increasing number of children of the European community. The directors have engaged the services of the Rev. C. Wright as chaplain for the European part of the company's establishment, at a salary of 300*l.* per annum. It is part of Mr. Wright's engagement that he shall, in conjunction with Mrs. Wright, keep a school for the boys and girls, for which a suitable charge will be made. Mr. Wright, with his family, left England by the January packet, and has safely arrived at Morro Velho.

A full statement of all the proceedings at the mines during the past year will be found in the report of the superintendent, and the several heads of departments, contained in the Appendix. The following is the financial position of the company:—

In England—Balance at the bankers'	£14,752	6	6		
At Messrs. Overend, Gurney, & Co.'s	15,000	0	0	£29,752	6 6
To pay—Drafts running	£11,210	16	8		
Dividend now declared	16,500	0	0		
10 per cent. to be carried to reserve fund	1,650	0	0	£29,360	16 8
In Brazil—Cash at Morro Velho	£ 2,974	16	11		
Ditto in hands of Messrs. Harrison & Co.	10,161	3	2	£13,136	0 1
To pay—Salaries and wages				£ 3,365	7 3
Reserved fund—Exchequer Bills	£8500	0	0		
Newcastle & Carlisle Railway Debentures	6500	0	0	£15,000	0 0

The general balance-sheet of the company's affairs shows that the assets amount to 156,721*l.* 18s. 7d., and deducting liabilities of the usual kind, there is a balance in favour of the company of 27,491*l.* 17s. 4d.; from which the dividend declared, as shown above, will be paid, leaving a balance of 9341*l.* 17s. 4d.

Statement of Receipts and Expenditure, from 31st May, 1850, to 31st May, 1851.

RECEIPTS.

Brought forward from last account—Balance at bankers'	£3713	8	0		
Cash at the office	15	2	7	3,728	10 7
Proceeds of seven shipments of gold				117,866	16 10
Received on account of parties in Brazil				1,120	13 11
Interest and dividends				638	3 7
Received from Overend, Gurney, and Co.				10,000	0 0
Total				£133,354	4 11

EXPENDITURE.

Paid acceptances outstanding, as per last balance-sheet	£ 9,020	0	0
Drafts of agents in Brazil	43,635	0	0
Salaries and wages in England on account of parties in Brazil	4,609	7	7
Stores sent to Brazil	2,729	14	4
Sending parties to and from Brazil	1,249	8	3
Insurance	620	4	9
Investment in Exchequer Bills and Debentures	3,587	12	6
Sixteenth half-yearly dividend, due 10th June	16,500	0	0
Seventeenth half-yearly dividend, due 9th December	16,500	0	0
Hire of negroes from the Brazilian Company	2,500	0	0
Income tax	688	11	11
Overend, Gurney, and Co., deposited with them	15,000	0	0
Charges on gold	34	2	4
Salaries of directors, clerks, rent, office expenses, stationery, postages, advertisements, and incidental expenses	1,916	16	2
Balance at the bankers', 14,752*l.* 6s. 6d.; cash in the office, 11*l.* 0s. 7d.	14,763	7	1
Total	£133,354	4	11

Capt. Treloar's annual report, attached, is a summary of what has appeared in the Journal during the year, and may be referred to. In the mechanical department a large amount of work of useful and lasting kinds has been performed; few breakages of the regos have taken place, and the stamping-mills have, consequently, been but little retarded in their working by stoppages, and the storeages are in good condition.

From the surgeon's report it appears that 52 deaths had taken place in the year; 1349 had been admitted and 1289 discharged—leaving 42 under treatment on 1st January last, and the increase from births had been six. From this it appears a great improvement has taken place; in 1848, 2435 cases were treated, and in 1849, 2159, as compared with 1349 above, for 1850. The greater number of fatal cases have arisen from diarrhœa and dysentery.

In Mr. Keogh's report he bears testimony to the general prosperity of the mines, and the good conduct of every one employed.

The report of Dr. Walker, who was engaged to proceed to the Brazils to enter into a full and complete investigation of all the circumstances connected with the negroes, is highly interesting and satisfactory. In it he enters at large into the geographical position of the mines—the bearing of the climate on the health of the black population—their food, clothing, lodging, medical treatment, &c.—the result of all of which inquiries is all that could be expected or wished; and the slaveowners generally prefer letting them on hire to Morro Velho than to any other part of the Brazils. Dr. Walker concludes by testifying, in the strongest manner, that the result of his investigations has been to demonstrate the groundless nature of the accusations of cruel and murderous treatment of the blacks, brought against Mr. Keogh and the directors; and that, on the contrary, their condition has been in several respects ameliorated, while the returns to the company have been greatly increased—two things perfectly compatible, if not inseparable: and he congratulates the directors not only on the present state, but also on the future prospects of the mine; for he believes it to be the unanimous opinion of the miners employed there that, under a continuance of good management, it will yield for many years equally profitable returns as those it is at present giving.

A PROPRIETOR inquired why nearly one half of the reserve fund was locked up in the debentures of the Newcastle and Carlisle Railway, in preference to Government securities, more particularly Exchequer Bills; and why so large a sum need remain as a reserve fund?—The CHAIRMAN explained that the debentures paid a much larger annual interest, and yielded 4½ per cent. The resolution that there was to be a reserved fund on all dividends declared, extended to 20,000*l.*; they had not got that sum yet, nor could it be lessened or altered without a special meeting for that purpose. It would be time enough to discuss that question when they had that sum. The board had to propose the appointment of three trustees, and hoped that would be satisfactory to the shareholders. He, therefore, proposed that the report and statement of accounts be received and adopted.

A SHAREHOLDER rose to make objections to the directors' appointment of a clergyman at so large a salary as 300*l.* a year, without consulting the shareholders at a meeting. Many clergymen could be found ready to perform all the duties required, who would not expect so large a salary.

The CHAIRMAN stated that two such appointments had been made prior to the one in question, and they had neither proved advantageous to the direct interest of the company either in a Christian or moral capacity. They had, therefore, considered it their duty to be more select in making their third appointment; and did not conceive it was in the least exorbitant. They had also agreed that the present clergyman and his wife should be the conductors of a school—the expense of which (about 100*l.* a year) was defrayed by the charge made to those receiving the benefit of instruction. The surgeon to the company was paid 350*l.* a year, and the chief miner 500*l.*; therefore, 300*l.* for a clergyman could not be deemed too much.

The motion was then carried unanimously, as well as the following:—That Mr. John Routh be re-elected a director of this company; that Messrs. H. W. Schneider and J. Sadler be re-elected auditors for the ensuing year; that Messrs. Robert Addison, Edward Hurry, and John Diston Powles be appointed trustees for the reserve fund.

The CHAIRMAN then rose to propose a subject, in doing which he must appeal to their feelings on behalf of the widow and 10 children of their late lamented and faithful superintendent, Mr. Herring, who had died since the last meeting, and he was extremely sorry to say, without leaving a suitable provision for his large family. He had proved himself during 17 years' service a faithful and indefatigable agent. By his exertions they had saved very considerably in many instances, and brought the concern to the high state of prosperity it at present was in. He would, therefore, propose—"That a donation of 500*l.* be presented to Mrs. C. Herring, widow of the late superintendent of the company."

Mr. ROUTH said, it was by Mr. Herring's exertions and recommendations that the purchase of the mines had been effected, and from which all the profit and dividends had been derived. He had also succeeded in getting the duty on gold reduced, which had proved a great annual saving; they, therefore, owed some little good-will to those whom he had left unprovided for.

Mr. KING objected to thus voting away so large a sum, without the appointment of two or three shareholders as a committee, to inquire into the claims Mr. Herring had upon them, and to ascertain that the family were really left in that state as to require it, for it appeared to him to be a sum quite out of character, and it was, moreover, a very dangerous precedent. Last year they had given 500*l.* to a living agent (Mr. Keogh), therefore, unless such a committee were appointed, he should object to the motion, unless it were reduced to 200*l.*, and moved an amendment to that effect.

A PROPRIETOR objected to the lesser sum, and would cheerfully accede to the larger amount being given. Gentlemen would not desert their country and friends to conduct affairs in a foreign land unless they were remunerated; to induce them, therefore, to perform their duties, as their late agent had done, they should show a spirit of liberality; and if distress attended them, or those they left behind, an example like the present would have a good moral effect. It was, in fact, less than 1s. per share.

Mr. CONYBEARE said he was probably the youngest proprietor present, but thought the proposal monstrous; he had not heard a valid argument in its favour. If they wished their servants to do their duty, they should have salaries accordingly, and not to hold out an example that death was to provide for their wives and families. Mr. Herring ought to have made a provision for his during the 17 years he had been in the Brazils—the latter part of the time at 1000*l.* a year. That he knew was considered an adequate payment for a civil engineer; and entertaining the greatest jealousy of the private acts of directors in general, he should protest against any sum being voted, beyond what a committee, upon investigation, should recommend them to grant; he should support the amendment.

The CHAIRMAN repeated that the matter rested entirely on their Christian feelings and sympathy; the board would cheerfully respond to it; upon the large number of shares they held, one of them would have to contribute full an eighth part, and surely the objector, holding 200 shares, ought not to withhold his 10*l.*, considering he was receiving 600*l.* a-year dividend, to most of which he was indebted to the perseverance of their late agent.—The amendment being put and lost, a new one proposed, of 300*l.*, met the same fate, only eight hands being held up for it.—He (the chairman) then explained that his motion was not compulsory, and if carried it did not bind the absent shareholder, nor those dissenting who were present; the dividend would be payable on the 10th, and the names of all those who assented, when receiving the amount, would be taken down, and whatever the amount might be, handed over to Mrs. Herring.—The resolution was carried.

Mr. BOSWICK congratulated his brother proprietors on the present prosperous state of their valuable mines, and of having such talented managers and agents, by whose means they were realising such handsome profits.

Mr. CONYBEARE then proposed that the thanks of the meeting be given to the chairman and directors for their zeal and ability in conducting the affairs of this company which was carried unanimously. The meeting then separated.

IMPERIAL BRAZILIAN MINING ASSOCIATION.

A special general meeting of shareholders was held at the offices, yesterday, for the purpose of electing an auditor.

THOMAS GIBSON, Esq., in the chair.

Mr. THOMAS (the managing director) having read the circular convening the meeting, previous to the show of hands, Mr. COLE stated that he laboured under considerable disadvantages—that on the 5th May he had sent in a written application for a list of shareholders, in order to enable him to prosecute his canvass—that to this communication no reply had been received. On the 23d May, 18 days after he had made this application, he received a notice that the book containing the number of voters could be seen at the office of the company. His honourable opponent, Mr. Bloxland, had previously been a candidate, had a list of voters in his possession from the last election, and, consequently, had a better chance of soliciting the suffrages of the proprietary. From the want of this necessary document he had been unable to ascertain the names of the shareholders in sufficient time, and, therefore, at present was merely supported by his personal friends, who had rallied round him on this occasion.

The CHAIRMAN said, if Mr. Cole had paid the usual fee of 2*l.* 2s. he might have had the document.

Mr. COLE stated he should have been glad to have done so, but had received no intimation to that effect, or knew that such was necessary.

The CHAIRMAN then said that there were two candidates for the office (Samuel Bloxland and Edward J. Cole, Esqrs.), and demanded the meeting, by show of hands, to declare which should be elected, both gentlemen being eligible. On the show of hands being put, it was declared in favour of Mr. Cole, when Mr. Bloxland demanded a poll.

At the close of the pole the votes were—for Mr. Bloxland, 105; Mr. Cole, 44; when the chairman declared Mr. Bloxland duly elected.

KINZIGTHAL MINING COMPANY.

A meeting of proprietors in this company was held at the offices, Adelaide-place, London-bridge, yesterday.

JOHN MASTERMAN, Esq., in the chair.

After the usual preliminary business, the following directors' report was read:

During the past year the directors have experienced great disappointment from all the mines which have been tried, with one exception—the Frederic Christian. Operations have been carried on in this mine with as much speed as was compatible with the economy urged upon the managing director. The lode in the main level is now re-opened for a distance of 474 feet; it is regular, kindly, and in many places produces stones of lead ore. The sump winze is down 36 fms., and in sinking a winze 6 fms. below the 10 fm. level, at a distance of 43 fms. from the sump winze, 3 tons of good ore have been raised. In order to reduce the cost of pumping, we are driving the 30 fathom end, so as to drain this place. Large quantities of ore were formerly raised in the upper levels of this mine, and our own experience at the bottom of the 10 fm. level justifies the expectation of a rich course of ore at a greater depth. Numerous experiments have been made upon the stock of cobalt ores, in the hope of converting them into a marketable article for this country, but the samples hitherto received do not reach the required standard. If this object can be accomplished, everything necessary for the manufacture can easily be obtained in the immediate neighbourhood of the mines. The stock of lead and copper ores now on hand, valued at 350*l.*, will soon be converted into cash. Whilst occupied in the pursuit of the more valuable minerals, a new feature has presented itself in the discovery of a substance existing in large quantities, which will sell at a good profit. An immense lode of barytes, of very superior quality, has been found in the Clara Mine, traceable on the surface for upwards of 450 fms., and in some places as much as 24 ft. wide.

Some manufacturers having applied to us for a supply of this article, to mix with carbonate of lead, and thereby produce what is usually sold as white-lead, Prof. Maehrlen, has made a careful calculation, founded upon the experience of different manufacturing establishments, and has come to the conclusion that, if we succeed in raising lead ore from the Frederic Christian, and work it up in combination with the barytes, a profit of more than 30 per cent. would be derived from the manufacture of white-lead by ourselves; but even without incurring at present the expense of erecting works for this manufacture, a large demand exists for the raw article, and arrangements will immediately be made for its sale. Such a prospect enhances greatly the importance of the trial in the Frederic Christian, and the German shareholders, and others who are personally acquainted with the property, urge upon the directors a steady prosecution of this work. In order to do this effectually, and to cover all outstanding engagements, an instalment of 10s. per share (making 3*l.* paid up) will be required upon all existing shares, which are now reduced in number by forfeiture to about 3300*l.* If the results of the operations in the Frederic Christian answer to its indications, an ample return may be expected from this source upon all our expenditure; and once assured of a steady supply of lead ore, we could proceed to the manufacture of the white-lead without any further call upon the shareholders, and with the assurance of a full demand for all our produce. We continue to receive the most valuable assistance from Sir Alexander Mallet, who has lately visited the mines, in company with a gentleman of great experience in mining. Some of the most influential amongst the German shareholders have associated themselves together as a local committee, to superintend the operations, and to watch carefully over the expenditure. At their suggestion the board has authorised the appointment of a competent person, at a moderate salary, to reside upon the spot, and to direct the strictly mining operations, whilst Prof. Maehrlen continues to attend to the general affairs of the company. Although success has not hitherto rewarded our efforts, it must be satisfactory to those who share our hopes of ultimate prosperity to know that no expense is now incurred for a London establishment, and that all money subscribed is rigidly applied to mining labour, at the cheapest possible price.

After some unimportant conversation, a vote of thanks was passed to the chairman, and the meeting separated.

Original Correspondence.

PHENOMENA OF MINERAL VEINS.

SIR,—I was much pleased with the perusal of Mr. Joseph Holdsworth's interesting letter on this subject in your last. What a marked distinction there is between his style of writing, and the description of the phenomena, compared to many of those who assume higher practical pretensions in the columns of your useful Journal.

I am gratified to find that he is no longer of the igneous school, and that he brings forward irresistible evidence of the incompatibility of veins being filled either from below or from above, and the impossibility of the existence of *open* fractures before the filling. The fact of the small and large angular masses of the rock separated from the sides of the fractures being found embodied in the centre of wide quartz veins, and which fragments may be restored, with all their delicate edges, to the parent rock, shows most distinctly that the veins have not only been gradually opened by the lateral crystallising force, like the freezing of water in joints, but likewise that the aqueous menstruum must have been, and often is, insufficiently saturated in the rock to dissolve the edges and thin flakes of the enclosed brecciated slate. We must not, however, forget the distinction which exists between *veins of fracture* and *split veins*—the latter not being so much dependent on the bounding rock, nor capable of retaining the fragments in the manner alluded to above, inasmuch as their being filled longitudinally in the direction of their length, usually obliquely from below and from side branches.

The concluding paragraph of my friend's letter, however, somewhat surprises me, which states—"I am not aware that any such opinions have as yet been promulgated as to the origin and contents of metallic veins." Now, these phenomena have not only been described in Mr. E. Hopkins's *Geology and Magnetism*, in chapters 6, 7, and 8, and very pointedly so at page 54, and illustrated in plate 13, but were subjects brought forward during our late investigations in Wales, and explained both personally and by direct observation to the facts, favoured by the innumerable instances displayed in the slaty districts of North Wales.

Mr. Hopkins not noticing the late medley of notions brought forward in the Journal does not at all astonish me, as he is too much engaged in his own business; but I can, however, state from experience that he is always happy to instruct those who apply for information, and I need not say how much such has been appreciated by all who have obtained it, both at home and abroad, and more especially so when received on and underground. I freely admit, with many others, that I prefer receiving his instructions in the field of operation than from his written work. The question is so abstruse and complicated that it would require volumes to fully describe; and, moreover, ocular demonstration of the character of rocks, and practice to learn their compounds, transition, &c., is requisite; it is the only mode by which he can acquire that invaluable knowledge of discerning quickly, by the test of the eye, their properties and economic value, and probable contents below.

I cannot claim so many years' practice as some of your correspondents do, but I think, from the notions they express in the *Mining Journal*, I could soon prove to them that they are sadly behind in the knowledge of selecting mineral ground, or of judging of the position and character of the bunches of ore from the configuration and structure of the country, or of the class of ore most likely to be produced in a given locality from a certain variety of rocks.—ALBERT DUMARESQ: *Dorset-street, Portman-sq., June 2.*

COMPRESSED-AIR ENGINES FOR MINES.

SIR,—I observe one of your correspondents asks for further information respecting the pumping engine underground, an account of which appeared in your Journal of the 12th October, 1850. I beg to inform your correspondent, "G. A.," that the little engine referred to has continued to work without intermission from that time to the present, and fully answers the purpose for which it was intended. The engine is on the high-pressure principle, having a cylinder 6½ in. diameter, with 18 in. stroke, and is pumping with a plunger 6 in. diameter, 20 in. stroke, making 30 strokes per minute, and lifting the water about 14 yards perpendicularly. The steam pressure at the boiler is 42 lbs. per inch, and the distance from the engine upwards of 600 yards. The engine is now at work at the Kilburne Colliery, near Derby, and if your correspondent would wish to examine personally this somewhat novel application of steam-power underground, I can undertake to say he would have full permission to do so on communicating privately with the manager. THE BLACK DIAMOND.

Kilburne, June 3.

BRISTOL COAL MINES.—No. II.

SIR,—There are two systems of ventilation practised in this district. The first may be termed natural—that is, the current of air passing through the mine being caused solely by the difference of temperature of the atmosphere on the surface and that in the workings; no artificial means being constantly employed to produce a brisk current of air in each working place, and the quantity being as variable as the weather. In the cold parts of the year the workings keep tolerably clear, but in warm weather, and during the prevalence of south or south-east winds, the air is frequently very impure. The foul air at those periods comes off the "goaf" so strong as to overpower the feeble efforts of the fresh, causing great portions of the workings to be impenetrable. Where a water-fall from a pumping engine is employed to clear the mine, the effect is transient, giving an impetus to the current only during its operation, after which the air again becomes almost stagnant; at those times the foul air ascends the upcast shaft in a sluggish white vapour, prejudicial to man and material.

In other cases, where the depth of the pits varies from 100 fathoms and deeper, the ventilation depends entirely on wooden tubes (about 12 or 14 inches square), carried down the side of the pit to the return air course, and from the upcast, and communicate with a chimney on the surface, or with the boiler chimney—this might be termed throttled ventilation.

When the air is foul the men place their candles in a horizontal position, spread out the wick that it may melt the tallow and increase the flame, to enable them to see to perform their work. There is a careworn appearance in the countenances of men long subjected to the influence of foul air. An imperfect system of ventilation invariably proves prejudicial both to owners and workmen, timber sooner rots, and the workings get out of order; and it cannot be expected that either horses or men, in a vitiated atmosphere, can perform a full day's work; they must sooner or later feel its baneful effects in the shape of diseases of various kinds, varying from lassitude to continued ill health.—CARBON: *Bristol, June 3.*

WHERE IS THE STAFFORDSHIRE MINES INSPECTOR?

SIR,—Could you, or any of your readers, inform the "workers in mines" here who the above gentleman is, and where he may be found? A Mr. Blackwell, we hear, was appointed to the office in the first instance; but, with the exception of a few visits, we have scarcely seen him. It is rumoured that he has changed "jobs" for some time now with a *thin* mines inspector—or, in other words, gone into South Wales, or the Forest of Dean, to learn how to get thin seams; and the "thin" gentleman came here to learn to get (thicker) the thick seam. However instructive this change might prove hereafter to these two gentlemen, we are at a loss to know what we are to learn from a man who probably was never in a thick coal-pit twice in his life. Fancy the consternation of this thin coal gentleman when shown into a side of work, containing some 10 or 12 pillars, with stalls 12 yards wide, and 8 or 9 yards of the coal cut away out of the 10! He peeps into this vast area half-frightened and bewildered. Says he, "Ah! but we do not get the thin coals like this where I have been used to." No, no, I should think they did not, Sir; indeed, we do not look for anything half so gigantic from such "thin" minded men.

I cannot but admire the communicative spirit of Mr. Mathias Dunn, the northern inspector. His ready explanations of the law of coroners' inquests in Scotland, the Jarrow affair, &c., given in your Journal lately, speaks volumes in his favour as an inspector, and is worthy of being copied by his colleagues; indeed, where you find a man possessing such a mass of mining knowledge as he does, it is sure to "boil over" at his mouth, or "run out" at his finger ends; and I have no doubt his forthcoming report will be read with great interest.—THICK COAL: *June 4.*

WORKING COAL BENEATH ANOTHER'S LAND.—In the Vice-Chancellor's Court, on Thursday, in the case Rippon *v.* Wawn, the plaintiff applied for an injunction to restrain the defendant from working coal under land alleged to belong to plaintiff, but which defendant denied; and for liberty to inspect defendant's mines, in order to ascertain the extent to which they had been worked. After the arguments, Lord Cranworth said, he could not grant an inspection, which would be allowing a party to commit a trespass, for the purpose of seeing whether he had a case against the defendant. As to the injunction, the plaintiff had not proved his title to the lands under which he said defendant trespassed; he must, therefore, refuse it.

THE ELECTRIC LIGHT.—On Saturday evening last M. Le Molt's light was displayed in all its power in Wigmore-street, Cavendish-square. The light diffused was of intense brilliancy, and devoid of that unsteadiness and flickering, which has hitherto been one of the great objections to the more extended use of electricity as an illuminating agent. When the lantern was turned to the several points, both Cavendish and Portman-squares were distinctly visible, dimming the numerous gas-lights, and imparting to all of them a yellowish tinge. The experiment may be considered perfectly successful, as exhibiting the powerful brilliancy and purity of the electric light within the circumscribed space to which the experiment was limited. We have seen several Talbotypes which have been taken by medium of this light, and they are as perfect as those taken in the sunshine. The battery of M. Le Molt is remarkable for the simplicity of its construction, the facility of working it, and the energy and duration of its effects. The improvements upon which the British patent is based are the employment of the dense and indestructible carbon of gas retorts, and also of a particular kind of carbon, compressed to an extraordinary degree of hardness, as an element of the pile; the electrotypic metallisation of a carbonic element, so as to establish the firmest adherent of the carbon to the conductor; a metallic band or conductor uniting the two elements, carbon and zinc, without screws; the application of an isolating coating on the surface of the neuter element, zinc, so as to prevent the destructive action of the acids on the surface. The pairs do not require to be cleaned or scoured as most others; it is only necessary to rince them in clean water, and they are ready immediately for re-arrangement. M. Le Molt's voltaic pile has been adopted by the French Government for the simultaneous service of the five grand electro-telegraphic lines from Paris to Amiens, Lille, Strasbourg, Toulon, and Bayonne. One of 30 pairs, the acids of which only require renewing every alternate month, is in the office of the Minister of Interior, and acts on a great number of electrometers, extending over a length of 850 miles. Lately a battery of 12 pairs, with diluted acids, was proved to be more than sufficiently strong for the communication between Paris and Brussels, a distance of about 204 English miles The specification of M. Le Molt's patent was given in detail in our Journal of the 3d Feb., 1849, and subsequent Numbers, together with our own observations at the same period, to which we must now refer our readers.

TRENAULT LIME QUARRIES COMPANY, 6000 parts, or shares, of £1 1s. each. 47
CONDUCTED ON THE COST-BOOK PRINCIPLE,
Which exempts shareholders from any liability beyond the amount of their shares, and enables them to withdraw at any time by giving notice to that effect.
Prospectuses, containing the Rules and Regulations in full, Maps, and every information, may be obtained at the offices, 30, Bucklersbury. JAMES A. MAY, Purser.

AMSTERDAM WATER-WORKS COMPANY—(RHINE SUPPLY).—The shareholders in this Company are requested to LEAVE their BANKERS' RECEIPTS at the OFFICES of the LONDON AGENCY, 27, New Broad-street, on TUESDAY next, the 10th June inst.—The Scrip will be issued in lieu of the Bankers' receipts on and after Thursday, the 12th inst. By order,
(Signed) J. C. FOURDRINIER, Secretary.
Offices of the London Agency, 27, New Broad-street, London, June 3, 1851. 48

LIVERPOOL COLLEGE OF CHEMISTRY,—Recognised by all the London Medical Examining Boards, and the Apothecaries' Hall of Ireland
Professor—Dr. SHERIDAN MUSPRATT, F.R.S.E., &c.
ANALYSIS and ASSAYS, sent to the above address, will receive IMMEDIATE ATTENTION.—Fees for Analysis, and for Students working in the Laboratory, may be had on application at the College.
Apothecaries' Hall, London, May 1, 1851.
At a Court of Examiners, held this day, it was resolved,—That the Royal College of Chemistry, London, and the College of Chemistry, Liverpool, be for the future recognised as Schools of Practical Chemistry, subject to the Regulations of this Court.
(Signed) HENRY BLATCH, Secretary. 49

ASSAY OFFICE AND LABORATORY, 23, HAWLEY-ROAD, KENTISH TOWN—conducted by Mr. MITCHELL, F.C.S., author of "Manual of Practical Assaying," &c.—Mr. MITCHELL begs to inform the Mining and Manufacturing Public, and Bullion and Metal Brokers generally, that he continues to conduct ASSAYS and ANALYSES of MINERALS, METALS, SOILS, and FURNACE and all other MANUFACTURING PRODUCTS.—ADVICE to PATENTEES and MANUFACTURERS on all MATTERS involving a knowledge of Chemistry.
INSTRUCTION, as usual, in ASSAYING, ANALYSIS, and METALLURGICAL and MANUFACTURING CHEMISTRY.—23, Hawley-road, Kentish Town. 50

BRITISH EXHIBITORS' PRICED LIST.—OFFICIAL CATALOGUES.—The BRITISH SECTION of the OFFICIAL CATALOGUE, with a general PRICED LIST of ARTICLES EXHIBITED—Price 1s.
The charge to Exhibitors for insertion of the Prices and Descriptions of their Productions in this List will be at the rate of *One Shilling per line in column* (average seven words per line). Orders should be forwarded to the Contractors as soon as possible, with a Description of the Article. The length of the description is left entirely to the option of the Exhibitor; but nothing will be inserted under a charge of Five Shillings; and it is absolutely necessary, to insure insertion, that a remittance should accompany the order.
Exhibitors are referred to the Saxon Section of the Official Catalogue, with a Priced List of Saxon Productions, already published, price 3d., as to the style and classification proposed for the British Priced List. Only those Exhibitors will appear in the Priced List who intimate their desire to that effect to the Contractors.
Any Exhibitor desiring to have separate copies of the List of his own productions, can be supplied at a reasonable cost, by giving early notice to the Contractors.
WM. CLOWES AND SONS, Printers.
SPICER BROTHERS, Stationers.
Official Catalogue Office, 29, New Bridge-street, Blackfriars, and at Hyde-park. 51

SMITH'S PATENT SELF-ACTING DAMPER REGULATOR.—The want of an apparatus at once sensitive and instant in action, for working the Dampers of Steam-Boilers, has long been severely felt, more especially where the steam is high-pressed and the Dampers worked by hand; for it is well-known that, owing to the trouble and inconvenience, the firemen will seldom attend to them—consequently, much of the required heat is wasted, being carried up the chimney, instead of confined *under* or *within* the boiler. In cases of low pressure also, the feed-pipe apparatus being slow in its operation, the above remarks apply with equal force.
The above PATENT DAMPER REGULATOR is SELF-ACTING, and entirely free from the control of the engineer.
The principle of working is similar to that of Smith's Patent Steam Indicator, except that the steam is admitted through a small brass weighted lever valve (which acts as a governor), worked by a plunger on a piece of India rubber at the top of a second smaller syphon. When the steam is up to the maximum height, the damper shuts, and as the pressure decreases gradually opens—thus keeping the steam at a regular height, and by preventing so frequent firing, very great saving of fuel is effected.
Several of these beautiful instruments are fixed and in operation (one at the Royal Arsenal, Woolwich, has been in use nearly two years), and all are giving unequalled satisfaction; and the subscriber feels confident this truly valuable invention only requires to be known to be appreciated and universally adopted. 52

TESTIMONIALS.

We have had several months' trial of Mr. Sydney Smith's Regulating Damper and Steam Indicator, set up by Mr. Banks, of Wordsley, at our 70-inch cylinder water-engine: they work entirely to our satisfaction, and indicate every stroke of the piston. We can strongly recommend them for similar purposes. W. & GEO. FIRMSTONE.
Lay Iron-Works, near Dudley, May 15, 1851.

Mr. Richard Banks, engineer, of Wordsley, has erected a Regulating Damper at our works, patented by Mr. Sydney Smith, of Nottingham, and we have great pleasure in stating that the saving of fuel is very great, being from 20 to 30 tons per week—our previous consumption being from 90 to 100 tons per week. JOHN HUGHES,
Old Hill Furnace, near Rowley, May 15, 1851. Per I. & T. BADGER.

We have had several months trial of Mr. Sydney Smith's Regulating Damper and Steam Indicator, set up at our mill-engine; they work entirely to our satisfaction, and we can strongly recommend them for similar purposes. E. CRESSWELL & SONS.
Tipton Iron-Works, near Dudley, May 20, 1851.

I have great pleasure in stating, Mr. Sydney Smith, from Nottingham, who is the patentee of the new Steam Indicator, has fixed me one of his High-Pressure Damper Regulators, which acts extremely well, falling and rising the damper 24 inches at a slight variation of pressure, and thus economising the consumption of fuel.
Phœnix Foundry, Thornton-road, Bradford, Oct. 3, 1850. WM. HARGREAVES.
Mr. J. PAGE, AGENT, MAYPOLE-YARD, NOTTINGHAM.

THE LATE DISASTROUS ACCIDENT ON THE LANCASHIRE AND CHESHIRE JUNCTION RAILWAY.—This ACCIDENT (in which five persons were killed and many others injured) may show the propriety of effecting AN INSURANCE with the RAILWAY PASSENGERS' ASSURANCE COMPANY, which is established for the purpose of affording COMPENSATION in cases of personal INJURY, and the PAYMENT of a CERTAIN SUM in the event of DEATH, by RAILWAY ACCIDENT.
The Company is empowered by special Act of Parliament (12 and 12 Vic., cap. 40), and has a capital of ONE MILLION as a guarantee to the assured.
Prospectuses, giving the rates of premium, and also particulars of the numerous cases, fatal and otherwise, already relieved, may be obtained at the offices, 3, Old Broad-street, London. ALEXANDER BEATTIE, Secretary. 53

VAUXHALL—BELL'S PATENT LOCOMOTIVE BALLOON—On MONDAY Mr. H. BELL, whose ascent last year excited so great a sensation, will make his FIRST ASCENT this year from those GARDENS on MONDAY, 9th June. Doors open at Five, the Ascent at Seven: Admission 2s. 6d.—The usual extraordinary Entertainments which take place every evening will follow the Ascent. Amongst the many unparalleled Novelties the following are included:—The Four greatest Equestrians in the World, Mad. Lejars, Mlle. Pauline Cusent, Mlle. Palmyra Annato, and Hernandez—Mr. Arthur Nelson, the extraordinary Pine Stick Harmonist—Foucault's beautiful Fire and Water Sports—the stupendous Picture of the "Temple of Concord"—Magnificent Fireworks, by Darby—Arban's inimitable Band for Concert and Ball—the Algerine Family—Monstre Platform for Dancing—Gorgeous Illuminations.
Open every evening.—Admission 2s. 6d. Doors open at Eight o'clock. 54

DR. LOCOCK'S ANTIBILIOUS WAFERS have a most pleasant taste, and is an aromatic and aperient medicine, of great efficacy for regulating the secretions and correcting the action of the stomach and liver, and in all bilious affections, heartburn, sick headache, giddiness, pains in the stomach, flatulency or wind, and all those complaints which arise from indigestion or biliousness. It is mild in its action, and suitable to all constitutions, while its agreeable taste renders it the best medicine for children.—Sold at 1s. 1½d., 2s. 9d., and 11s. per box.—Also, DR. LOCOCK'S PULMONIC WAFERS, for asthma, consumption, coughs, and colds; upwards of 500 cures have been effected within the last twelve months by this medicine and published.—Price 1s. 1½d., 2s. 9d., and 11s. per box: sold by all medicine vendors.—Observe, all pills under similar names are counterfeits. 55

GREAT BRYN CONSOLS COPPER AND TIN MINE, Situate in the parish of WITHEL, near BODMIN, CORNWALL. 58
Applications for the remaining shares to be made to the Committee of Management; W. M. Kearns, Esq., No. 3, Bloomsbury-place, Bloomsbury-square; or to Mr. Lelean, No. 5, Crosby-hall Chambers, Bishopsgate-street, London.

HALAMANNING AND CROFT GOTHAL CONSOLIDATED MINES, ST. HILARY, CORNWALL.—At a SPECIAL GENERAL MEETING of the adventurers, held on the 6th inst., it was—
Resolved,—That this mine should be divided into 10,000 shares, of £3 each, upon which a deposit of £2 per share is to be paid, and a call of £1 in two months, if required, which, with the capital already expended by the present adventurers, it is estimated will be sufficient to bring the mines to pay dividends.
Of the 10,000 shares, 6000 are taken by the present adventurers, and 4000 will be issued to the public.
Prospectuses will be ready in the course of a few days, and may be had at the offices, 2, Winchester-buildings, Old Broad-street; and of Messrs. Johnson, Longden, and Co., 22, Tokenhouse-yard, London.—Dated June 7, 1851.

WHEAL ANNA CONSOLS,—ST. AUSTELL
Deposit £1 per share. 58
CONDUCTED ON THE COST-BOOK PRINCIPLE.
Capt. JOHN PUCKEY, Inspecting Mine Agent.
BANKERS—London and County Bank, Lombard-street, London.
Applications, until Monday, the 9th inst., may be made for shares to Mr. T. C. Mundey, 75, Old Broad-street, and Stock Exchange.
NO APPLICATIONS will be RECEIVED after MONDAY, the 9th inst.
Winchester-house, Old Broad-street, London.

THE MACCLESFIELD COPPER MINE,
IN THE PARISH OF BUCKFASTLEIGH, DEVONSHIRE. 59
Inspecting Engineer—Adam Murray, Jun., Esq.
Purser—Mr. C. Robins, Landreau, Ashburton.
Secretary—Mr. G. Bagley.
OFFICES,—5, GUILDHALL CHAMBERS, BASINGHALL-STREET.
Applications for the remaining shares to be made to the Secretary, at the offices of the Company, where plans and specimens of the ore from the lodes may be seen, and prospectuses obtained.

EXTRACT FROM CAPTAIN S. THOMAS'S REPORT.

May 10.—I have seldom seen a finer lode at the surface, and I should recommend your driving on its course at the adit level, as well as continuing the sinking of the engine-shaft to the 42 fathom level. It is my belief that this lode will be found rich in copper ore at the adit level and in depth: the clay-slate stratum in which it is embedded is similar to the rich mines of Cornwall. There is ample water-power, and a small capital only will be required, as all the machinery, smithy, account-house, &c., are erected. The sett is extensive, and being so near the granite range, with the cross-courses traversing the sett, and with other lodes of good promise, I consider this mine presents unusually fair prospects of success.

GALLT-Y-MAEN SILVER-LEAD MINING COMPANY,
LORDSHIP OF MOWDDWY, COUNTY MERIONETH. 60
NOW IN WORK ON THE COST-BOOK PRINCIPLE.
In 12,000 shares, of £3 each.
Deposit £2 per share, to be paid upon transfer.—No further call to be made, unless with the consent of the shareholders in General Meeting assembled.
COMMITTEE OF MANAGEMENT.
A. A. DORIA, Esq., Lincoln's Inn.
WILLIAM WATSON JEFFREY, Esq., 4, New Broad-street.
JAMES T. KIRKWOOD, Esq., Woodland-terrace, Greenwich.
CHARLES MAPLESTONE, Esq., 27, Bucklersbury.
HENRY MOSS, Esq., 3, Church-court, Clement's-lane.
(With power to increase their number.)
Manager of the Mines.—Mr. Charles Samuel Richardson, 15, Old Broad-street.
Solicitor—Edward Maniere, Esq., 2, Scott's-yard, Bush-lane.
Bankers—Messrs. Martin, Stone, and Martins, Lombard-street.
Broker—John Guillemard, Esq., 3, Bartholomew-lane.
Purser—Austin Edwards, Esq., Brook-green, Hammersmith.
OFFICES,—3, SHERBORNE-LANE, LONDON.
The Gallt-y-Maen sett extends over about 294 acres of rich mineral land, and is situate in the lordship of Mowddwy, in the county of Merioneth; it is held under lease from the lord of the said manor, at a royalty of 1-14th, for a term of 21 years, and a sleeping rent of £100 per annum.
Gallt-y-Maen is in the vicinity of the celebrated Great Cowarch Silver-Lead Mine, which is producing large quantities of ore, yielding 70 to 80 per cent. of lead, in addition to a considerable quantity of silver.
Prospectuses and all other information to be had upon application at the Offices of the Company; or to John Guillemard, Esq., Stock Broker, 3, Bartholomew-lane.
Offices, 3, Sherborne-lane, City.

GREAT WHEAL TONKIN COPPER, TIN, AND SILVER-LEAD MINING COMPANY,—CORNWALL. 61
ON THE COST-BOOK PRINCIPLE.
In [illegible] shares, of £2 each.—Deposit £1.
The remainder to be paid [illegible] of 5s. a share, if required, on giving one month's notice.
TRUSTEES.
Sir ROBERT PRICE, Ba[illegible]ratton-street, Piccadilly, and Foxley, Herefordshire.
ALEX. WRIGHT, Esq., J[illegible]y Lord-Lieutenant, St. Catharine, Mid-Lothian.
AUGUSTUS NEWTON, Es[illegible]thfield, Wandsworth.
(With power to add to their number.)
BANKERS—London Joint-Stock Bank; Western Branch, 69, Pall-mall.
SECRETARY—Mr. P. Scott, 50, Pall-mall, London,
OFFICES,—50, PALL-MALL, LONDON.
Prospectuses and full particulars, with reports, may be had, and shares obtained, on application to the secretary, at the offices of the company, Vernon House, 50, Pall-mall, London, where specimens of the ore may be seen; or to Spencer Herapath, Esq., stock and sharebroker, 5, Angel-court, Throgmorton-street, London. P. SCOTT, Sec.

GREAT TREVEDDOE AND CABILLA TIN AND COPPER MINES.—In 1200 shares, of £6 10s. each—(payable as under-mentioned).
Managed by a Financial Committee of Shareholders in London, in strict accordance with the Cost-book Principle, and in conformity to the Stannary Laws.
No further call or responsibility, other than for the individual interest taken. 62
These mines comprise several very ancient short Tin Mines, with very large lodes. Tradition asserts them to have been more productive than any others of similar depth, but the barrier grounds between the several mines prevented their following the tin or working deep, as they had no outlet, nor any means of draining the mine water.
The right to the several mines having been obtained, the present deeper level has been brought in and driven through the intervening barriers, the water let down, and the old mines cleared up and connected, in doing which upwards of £7000 worth of tin has been sold. Very rich runs of tin are passing down from the present to the next level in the great lode. Iron rails have been laid home to the present stopes, and to the spalling floors, &c. There are three large water-wheels, and stamping-mills, with 40-heads, now working. The mines are in good ventilation and condition.
The lode now working is about 30 feet wide, with many rich runs of tin. A large lode to the south will fall into this great lode, about 30 fathoms under the present level; and this great lode will itself overtake a nearly downright lode a few fathoms to the north, when there is no reason to doubt a great accumulation of tin.
The mine drainage will now be very cheap, as there is ample water for unlimited stamping power and every other purpose, from a constant river, having nearly 200 feet fall, within the limits of this consolidation.
The geological features are in every way favourable, and of very large and lasting quantities of tin there can be no kind of question. From one of the copper lodes upwards of £1400 worth of ore has been sold, from only 27 fathoms on the lode, at less than 30 fms. from surface. From the old burrows, on another copper lode, upwards of 5 tons of very rich copper ore have been picked from the refuse of the former tinners, who were intent on the tin only, and took no notice of the copper.
The incoming shareholders will have the benefit of the expenditure of £7000 worth of tin raised, and of the outlay of £6000 in driving into and connecting the old mines, in effecting other useful works, and in machinery.
There is no wish to assert that these mines will be the most profitable in the county, but it is not too much to say, they have very great capabilities, with the certainty of permanent workings, and that the outlay of from £3000 to £5000 will be ample to place them in great prodnce.
They are divided into 1200 shares, 800 of them are offered to the public at £6 10s. per share, payable—£2 10s. now, £2 10s. on 24th October next, and £1 10s. on the 24th of January next, or the shares, and all previous payments, will be absolutely forfeited.
Of the £6 10s. per share, £1 10s. will be applied to the purchase of the share cost-free to the 1st of July next; and the £5 per share will be all applied to the working capital.
There is no probability that any further working capital will be required after the expenditure of the £5 per share on the 800 shares. In no event shall the purchasers of those shares, or the present shareholders, be liable for further call or contribution, but if necessary the shares shall be subdivided into 3000, and such portion of them as a vote of the shareholders shall determine shall be sold.
The certificates of the shares may be had upon payment of the £2 10s. per share, into the account of the "Great Treveddoe and Cabilla Tin and Copper Mines," at the bankers; or at the (pro tem.) offices of the Company, 70, King William-street, City, London.

ECONOMIC MINING ASSOCIATION.—This ASSOCIATION has been ESTABLISHED SIX MONTHS—its objects being the PURCHASE of MINING SHARES for INVESTMENT of a PROFITABLE KIND: it has been very successful, having made considerable profits. A Dividend, at the rate of 20 per cent., will be declared every three months after this year. The contributions are 5s. per month per share: present price £2 10s.
For particulars apply to Mr. Divers, Great Bell-alley, Tokenhouse-yard; or to Mr. C. S. Richardson, 15, Old Broad-street, London. 63

THE DEVON HAYTOR GRANITE COMPANY,
UPON THE COST-BOOK SYSTEM.
In 20,000 paid-up parts, or shares, of £1 each, without further liability.
OFFICES,—59, KING WILLIAM-STREET, CITY. 64
This COMPANY is FORMED to WORK the celebrated HAYTOR GRANITE QUARRIES, situate at HAYTOR, SOUTH DEVON, which comprise 10 of the largest quarries in England. They are held under lease direct from the Duke of Somerset, at a low annual rent without royalty.
It is well-known that the granite from these quarries is superior to that of any other in England or Scotland, both in hardness and durability, and it has already been used in London Bridge, Goldsmiths' Hall, Christ's Hospital, Fishmongers' Hall, &c.
The quarries have been recently re-opened, and arrangements made for furnishing an extensive supply, and embarking in corresponding contracts, for which purpose additional capital is required.
The amount now proposed to be raised will enable the Company fully to develope the quarries; and after the closest investigation, the Directors feel perfectly justified in anticipating a nett profit of from 20 to 25 per cent.
For prospectuses, forms of application for shares, and all other information, apply to the purser, Mr. A. W. Pollock, at the offices of the Company; to the solicitors, Messrs. Terrell and Matthews, 30, Basinghall-street; or Mr. R. E. Little, stockbroker, No. 11, Warnford-court, Throgmorton-street.

Mining Exchange Official Share List.

LONDON, FRIDAY EVENING.—June 6, 1851.

Shares.		*Paid.*	*Last Price.*	*Present Price.*
5120	Alfred Consols (copper), Phillack	3	16¼	16¼ 16¾
1248	Allt-y-Crib (silver-lead), Talybont	5	10	
1024	Appledore (silver-lead and cop.) St. Ives	2	3	
1624	Balleswidden (tin), St. Just	11¼	10¼	
940	Balnoon Consols (tin), Uny Lelant	—	3¼ 4	
5000	Bargally (lead), Cairnsmore	—	1	
3650	Bawden (silver-lead) St. Teath	¼	¼	
4000	Bedford United (copper), Tavistock	2¼	7 7¼	7 7¼
256	Berrow (copper), Liskeard	2¼	3 3¼	
32	Black Burn, Alston, Cumberland	15	100	
5000	Black Craig (lead), Kirkcudbrightshire	5	5	
8000	Blaenavon (iron), South Wales	50	12½	
1024	Bodmin Consols (lead), Wadebridge	5	5	
1024	Bodmin Wheal Mary (copper), Bodmin	7	8½ 9	
40	Bolowall and Nanpean (tin), St. Just	—	20	
64	Boscaswell Downs (St. Just), tin	—	100	100
240	Boscean (tin), St. Just	12½	12½ 13	
600	Bosorn (tin), St. Just	5	¾	
100	Botallack (tin and copper), St. Just	182½	207	205 215
256	Brewer (copper), Gwennap	2	6¼	
256	Bridford Consols	1	1	
10000	British Iron, New, regis. (iron)	12	8	
—	Ditto ditto, scrip	10	10	
2000	Bromfoyd (lead)	1	1½	
2400	Bryn-Arian (lead), Cardiganshire	2	2	
1000	Bryntail, Llanidloes, Montgomeryshire	2½	17½ 18	
107	Budnick Consols (tin), Perranzabuloe	52½	9	
812	Butterdon (lead), Menheniott	3¾	5¾ 6	7 7½
2000	Bwich Consols (silver-lead), Cardiganshire	4	4 4½	
1000	Callington (lead and copper), Callington	28	6¼ 7	
1000	Camborne Consols (copper), Camborne	7	4 5	
1536	Caradon Vale (copper and lead), St. Ive	2¼	1¼	
1000	Carbona (tin and copper), Crowan	5	5	
1000	Carn Brea (copper and tin), Illogan	15	100 105	
1056	Carvannall (copper), Gwennap	3	5	
200	Cefn Bruno (lead), Cardiganshire	6	80	
256	Chyprase, St. Enoder, Cornwall	5½	12½	
1024	Clijah and Wentworth (tin & co.), Redruth	1	5	
128	Comfort (copper), Gwennap	65	50	
256	Condurrow (copper and tin), Camborne	20	100 105	110
2510	Cook's Kitchen (copper and tin), Illogan	15½	4¾ 5	
1000	Copper Bottom (copper), Crowan	7	7¼	
900	Court Grange (silver-lead), Cardiganshire	10	12	
211	Craddock Moor (copper), St. Cleer	29	8¼	
256	Crane and Bejawsa (copper), Camborne	20	30	
1000	Cwm Erfin (lead), Cardiganshire	6	3¼ 4	
128	Cwmystwith (lead), Cardiganshire	60	100	
1000	Daren (silver-lead), Cardiganshire	2	8	
7100	Derwent (silver-lead), Durham	10	3	
5000	Devon Consols North (copper)	2¼	4	
4160	Devon and Courtenay Consols (copper)	1¼	1¼	
1024	Devon Great Consols (copper), Tavistock	1	300	295 300
672	Ding-Dong (tin), Gulval	5	7 8	
180	Dolcoath (copper and tin), Camborne	252	15	
2560	Drake Walls (tin and copper), Calstock	6¼	5	
3000	Dyfngwm (lead)	10	3 4	
1024	East Balleswidden (tin), Sancreed	1¼	2	
256	East Basset (copper) Redruth	10	17¼	17 17¼
1024	East Buller (copper), near Redruth	3	4¼ 5	
2048	East Crowndale (tin), Tavistock	7¼	3	
150	East Daren (lead), Cardiganshire	17	58 59	
256	East Godolphin (copper), Crowan	17¼	21	
4000	East Gunnis Lake Junction (copper)	¼	2	
128	East Pool (tin and copper), Pool, Illogan	24¼	150	150
256	East Seton and Wheal Maude, Redruth	4	2¼	
9000	East Tamar Consols (silver-lead)	1¼	17s 6d 18s 6d	18s 19s
256	East Tolgus (copper), Redruth	4	13	
256	East Tywarnhayle (copper), St. Agnes	11	11	
94	East Wheal Crofty (copper), Illogan	125	120	
256	East Wheal Frances (copper), Illogan	4¼	4	
2048	East Wheal George (cop.), Walkhampton	1	10	10
512	East Wheal Leisure (copper)	8	17	14 15¼
1024	East Wheal Margaret (tin and copper)	¼	1¼ 1½	
1000	East Wheal Reeth	¼	1¼	
128	East Wheal Rose (silver-lead), Newlyn	50	550	
4000	East Wheal Russell	8s 6d	4¾	
1280	Esgair Llee Llanfihangel-y-Croythin	4¼	5¼ 6	
494	Fowey Consols (copper), Tywardreath	40	30	
2660	Garras (silver-lead), near Truro	5¼	4¼	
5000	Garreg (lead), Flint	—	1¾ 1¾	26s 20s 25s
3750	General Mining Co. for Ireland (copper)	1¾	5¼	
100	Goginan (lead), Cardiganshire	5	200	
256	Gonamena (copper), St. Cleer	46	12	
243	Grambler and St. Aubyn (copper)	80	34 35	
96	Great Consols (copper), Gwennap	1000	200	
2000	Great Cowarch (silver-lead), Merioneth	2	5¼ 5¾	3 3¼
11000	Great Polgooth (tin), St. Austell	2	2¾	
1024	Great Wheal Alfred, St. Erth and Phillack	4	4 4½	4 4¾
512	Great Wheal Baddern (tin and silver-lead)	20	85	
512	Great Wheal Rough Tor Consols (copper)	29	20	
119	Great Work (tin), Germoe	100	200	
1026	Gustavus Mines (copper), Camborne	6¼	6	
512	Hawke's Point (copper), Uny Lelant	7	3¼ 4	
1024	Hawkmoor (cop.), Calstock, Gunnis Lake	7¼	6	
6000	Heignston Down Con. (copper), Calstock	2¼	1¾ 2	
32	Helvellin Mining Company, Westmoreland	15	25	
1500	Hennock (silver-lead), Hennock	2¼	2¼	
1024	Herodsfoot (lead), near Liskeard	8	7¼	7 7½
10000	Hibernian (copper) Ireland	12½	1¾	
1000	Holmbush (lead and copper), Callington	24	20	
1900	Keswick (lead), Portinscale, near Keswick	11	2 3	
1024	Kingsett and Bedford (lead and copper)	4¼	2¼	
786	Kirkcudbrightshire (lead), Kirkcud	9¾	4	
1742	Lamherooe Wheal Maria (copper & tin)	12	10 11	
252	Lanarth Consols (copper), Gwennap	4	5¼	
256	Lelant Consols (tin), Uny Lelant	57	22	
160	Levant (copper and tin), St. Just	—	160	
1000	Lewis (tin and copper), St. Erth	17	20¾	
100	Lisburne (lead), Cardiganshire	75	700	
1000	Llwynmalees (lead), Cardiganshire	10	9	
3600	Llynvi Iron (iron)	50	50	
5000	Low's Patent Copper Company	7	10	
6000	Marke Valley (copper), Caradon	10	3¼	
8000	Mendip Hills (lead), near Bristol	3¾	2¼	
5000	Merllyn (lead), Flint	2¼	4	3
1024	Mill Pool (tin and copper), St. Hilary	1	2	
256	Mineral Court (tin), near St. Austell	25¼	30	
20000	Mining Co. of Ireland (copper, &c.)	7	5¼ 5¾	
2000	Molland	1	1 1¼	
1024	Montgomery (lead and copper)	8	11	
160	Morvah Consols (tin and copper)	2	3	
320	Nansegollan (tin and copper), Camborne	3	3¼ 4	
200	Nanteos (lead), Cardiganshire	34	30	
3000	Nant-y-Car (copper), near Rhayader	2	2	5 5¼
2048	New East Crowndale (copper and tin)	1¼	¾	
1024	North Buller (copper), Redruth	5	13	
256	North Fowey Consols	—	25	
256	North Trefusis (tin and copper), Redruth	1	1	
6000	North Wheal Basset (copper and tin)	2	13	
1200	North Wh. Buller, or Gt. South Tolgus	5	14	
100	North Pool (copper and tin), Pool	45	500	
140	North Roskear (copper), Camborne	10	155	
256	North Tolgus (copper), Redruth	9	16	
862	North Wheal Leisure, Perranzabuloe	1¼	1¾	
256	Old Wheal Basset (copper), Redruth	1	2¾	
128	Par Consols (copper), St. Blazey	55¾	650	
1026	Pendarves Consols (copper), Camborne	3¾	6	
1000	Pendarves and St. Aubyn (tin and copper)	5	11	
406	Penhauger	1	3	
4934	Pennant and Craigwen (lead)	3	3¾	
1000	Penrait	1	3 3¼	
2048	Pentire Glaze (silver-lead), St. Minver	5¼	5¼ 7	
1000	Pen-y-bank and Ergiodd (lead)	4	6¾	
1024	Penzance Consols (tin), Sancreed	2¼	1¾ 2	
1160	Perran St. George (copper and tin)	21¼	40	
1000	Peter Tavy and Mary Tavy (copper)	3¾	15 20	
200	Phœnix (copper and tin), Linkinghorne	—	240	
1000	Polberro (tin), St. Agnes	15	15	
560	Providence Mines (tin), Uny Lelant	20¼	25	
2500	Rhoswydol and Bacheiddon (lead)	10¼	6	
40000	Rhymney Iron (iron), Rhymney	50	12	
10000	Ditto New	7	3	
5000	Rocks and Treverbyn (tin), St. Austell	4¼	4¾	
2048	Runnaford Coombe (tin)	3	3¾ 4	
1024	Sidney Godolphin (copper), Breage	3¾	2¾	3¾
2000	South of Scotland	1¼	1	¾ 1
256	South Caradon (copper), St. Cleer	30	130 135	
2000	South Carn Brea (copper), Illogan	10	8¾	
256	South Friendship Wh. Ann (copper & tin)	30	28 30	
300	South Speed (copper and tin), Uny Lelant	15	30	
9000	South Tamar (silver-lead), Beer Ferris	1	1¾ 2	
256	South Tolgus (copper), Redruth	16	160 165	
256	South Trelawny (lead), near Liskeard	33¾	4¾ 5	
2000	South Wales Mining Company (lead)	1¾	2¾	
248	South Wheal Frances (copper), Illogan	80	280 285	270
256	South Wheal Josiah (copper), Calstock	2	2¾	
1024	Spearne Consols (tin), St. Just	1¾	9 10	
280	Spearne Moor (copper), St. Just	30	40	
1024	St. Aubyn and Gryils (copper and tin)	2¾	5 5¾	5 5¾
94	St. Ives Consols (tin), St. Ive's	80	80	
1000	Stray Park and Camborne Vean (copper)	15	14¾ 15	
9600	Tamar Consols (silver-lead), Beeralston	4	4¾	4¾ 4¾
687	Tavy Consols (copper), near Tavistock	8¾	1¾	
6000	Tincroft (copper and tin), near Pool	7	4¾	5 5¾
128	Tokenbury (copper), St. Ive, Liskeard	8¾	12	
1200	Tolcarne (tin and copper), Camborne	2¾	3	
1024	Trannack and Bosence, St. Erth	1	3	

Shares.		*Paid.*	*Last Price.*	*Present Price.*
1024	Trebarvah, Perranuthnoe	1	5	
600	Tregardock (lead), St. Teath	1	5	
1120	Tregorden (silver-lead) Wadebridge	2¼	5¼	
256	Trehane (silver-lead), Menheniot	1¼	14	14¼
8000	Treleigh Consols (copper), Redruth	6	2¼ 2¾ 3	
1000	Treloweth, St. Erth	4¼	6 7	
600	Trelyon Consols (tin), St. Ive's	4	5 6	
2000	Tremance (copper), Helston	6	5	
96	Treseavean (copper), Gwennap	20	220	
120	Trethellan (co[illegible]), Gwennap	5	14 15	
512	Trethevy (cop[illegible] St. Cleer	9¼	5¼	
120	Treviskey and Barrier (copper)	130	190 200	
512	Treville (lead), Lewanick	2¾	9	
604	Trowan Consols (tin), Towednack	7	10	
100	Trumpet Consols (tin), near Helston	95	100 105	
500	Tywarnhayle (cop.), Illogan & St. Agnes	60	31¼	
512	Tywardreath (copper), St. Blazey	2	10	
200	United Mines (copper), Gwennap	300	80 90	
5000	Warleggan Consols (copper)	¼	¼	
1024	Wellington (copper & tin), Perranuthnoe	6¼	8 8¼	
1024	West Alfred Consols	7¾	20	19
5000	West Basset (copper), Illogan	¾	7	
128	West Buller (copper), Redruth	10	1050	
2[illegible]	West Caradon (copper), Liskeard	20	105 107¼	
25[illegible]	West Damsel (copper), Gwennap	5¼	53	
1024	West Ding-Dong (tin)	¼	3¼	
512	West Fowey Con, (tin & cop.), St. Blazey	40	60	
2048	West Goginan (silver-lead), Cardiganshire	1¾	3	
1024	West Par Consols (copper), St. Blazey	10	11	
1024	West Phœnix, Linkinghorne	4	4	
12500	West Polgooth (tin), St. Ewe & St. Mewan	1	1	
512	West Providence (tin), St. Erth	10	85	
200	West Seton (copper), Camborne	67	115 120	
256	West Sharp Tor (copper) Linkinghorne	22	49	
940	West Tolgus (copper), Illogan	13¼	5 5¼	5¼ 5¾
120	West Trethellan (copper), Gwennap	15	20	
5000	West Wheal Alfred	1	1¼	
512	West Wheal Frances (copper), Illogan	7	19 20	
1024	West Wheal Friendship (copper)	3	3	
3715	West Wheal Jewel (tin and copper)	12	1¾ 1¾	
4000	West Wheal Russell	¼	1¼	
500	West Wheal Towan (copper), Illogan	15	14 15	
1024	West Wheal Treasury (copper), Gwinear	8	4	
1070	Wheal Adams (lead), Christow, Exeter	13¾	16	
1000	Wheal Agar (copper), Illogan	6	5¼ 5¾	
300	Wheal Arthur (lead), near East Wh. Rose	17	49	
1228	Wheal Arthur (silver-lead&cop.),Calstock	1¾	6	
240	Wheal Bal (tin), St. Just	5	16 17	
256	Wheal Basset (copper), Illogan	10¼	365	380 385
256	Wheal Carpenter (tin), Gwinear	1¾	6 7	
1024	Wh. Carpenter (lead & cop.) S. Sydenham	2	3	
124	Wh. Castle and Boswedden (tin & copper)	5	20	
1024	Wheal Chiverton (copper)	1	1 1¼	
1024	Wheal Crebor (copper), Tavistock	2¾	5¼	
1024	Wheal Cupid (copper), Gwennap	1	5	2
182	Wheal Elizabeth (copper), Redruth	19	8	
182	Wheal Ennis (lead), St. Erme	12	20	
1024	Wheal Fortescue (copper), Tavistock	5	1¼	
126	Wheal Friendship (copper)	120	120	
764	Wheal Franco (copper), near Tavistock	14¼	8 8¼	
4000	Wheal Golden (lead), Peranzabuloe	2	7¼	
2560	Wheal Harriet (copper), Camborne	1	1	¾ 1
216	Wheal Henry (copper), Kea, near Truro	25	8	
2000	Wheal Langmaid (lead)	¼	1¼ 1	
1000	Wheal Lemon, Germoe	13s	1	
430	Wheal Lovel (lead and tin), Helston	—	20	
112	Wheal Margaret (tin), Uny Lelant	79	140	
512	Wheal Mary Ann (lead), Menheniot	5¼	62	60
990	Wheal Mary (copper), Redruth	16	7¼	
1024	Wheal Neptune (copper), Perranuthnoe	2	3	
40	Wheal Owles, St. Just	200	235	
128	Wheal Plenty (copper), Redruth	19	38 39	
5000	Wheal Providence, South Sydenham	¼	3	
256	Wheal Prudence (copper), St. Agnes	2¾	5	
240	Wheal Reeth (tin), Uny Lelant	20¼	90	
2048	Wheal Robins	¼	1¼	
4000	Wheal Russell (copper), Tavistock	1¼	1¼	
198	Wheal Seton (tin and copper), Camborne	107	200	
1024	Wheal Speedwell (copper and tin)	2	1 1¼	
1024	Wheal Squire (copper), St. Erth	1¼	1¾	
1024	Wheal Stanagwyn (copper), St. Stephen's	1	10	
1000	Wheal Susan, Breage and Crowan	1¼	2	
1024	Wheal Sydney, Plympton	1¼	4	
512	Wheal Trefusis (copper), Gwennap	7¼	17 18	
520	Wheal Trelawny (silver-lead), Liskeard	3¾	52	50¾ 51¼
1024	Wheal Treluskack (copper), Stythians	5	5	
1024	Wheal Tremayne (tin and cop.), Gwinear	9¾	21¼	20 21
267	Wheal Tryphena (tin and copper)	40	18¼	
126	Wheal Union (copper), Redruth	40	40	
1024	Wheal Uny (tin and copper)	2	5 5¼	
1024	Wheal Venton (silver-lead), Liskeard	3¾	6¼	
1000	Wheal Vincent (tin), Alternun	7¾	6¾	
5200	Wicklow (copper), Wicklow	5	20¼	

Shares.	FOREIGN MINES.	*Paid.*	*Present Price.*
5000	Alten Mining Company (copper), Norway	14¼	3
19000	Australian (copper), South Australia	4	¾ ¼
10000	Brazilian Imperial (gold), Brazil	23	3 3¾
12000	Cobre Copper Company (copper), Cuba	40	38 ¾ ¾ ¾
10000	Coplapo Mining Company (copper), Chili	14	7 7¼
20000	General Mining Association (iron & coal), Nova Scotia	20	14
3250	Kinzigthal Mining Association (silver), Germany	2¾	
5000	Linares (lead), Spain	3	2¾ 2¾
500	Ditto Preference	3	3 3¼
4500	Ditto Additional	1	1¾
5051	Mexican Company (silver), Mexico	59¾	
20000	Mexican and South American (copper), Mexico	4¼	4
5000	National Brazilian (gold), Brazil	30	2
10400o	North British Australasian (copper), S. A. & New Zea.	1	¼
7000	Royal Santiago (copper), Cuba	10	7¼ 7¾
11000	St. John del Rey (gold), Brazil	15	18
43174	United Mexican (silver), Mexico	Av. 28¼	3¾ 3¾
10000	Worthing (copper), Adelaide, South Australia	3	2¾ 3 3¼

The particulars of the following mines, though not included in the Official Share List, have been furnished by known correspondents, on whose authority they are published:—

Shares.		*Paid.*	*Last Price.*	*Present Price.*
905	Barristown (lead), Carrick	5¾	5	
1500	Bishopstone (silver-lead), Glamorganshire	2¾	10	
5000	Bodmin Moor Consols (tin and copper)	1	4	
6000	Bolenowe	2¾	4¾	
1024	Boringdon Park (silver-lead), Plympton	1	5 5¾	
1024	Bottle Hill (copper) Plympton	1	1 1¾	
1000	Cae-Gynon (silver-lead), Cardiganshire	½	4¾	
4000	Calstock United (copper)	5	6	
3000	Cally (copper and lead), Kirkcudbrightsh.	1	1¼	
20000	Cameron's Steam Coal (coal), Swansea	10	2 2¼	
1168	Caradon Great Cons. (cop.), Linkinhorne	7	3	
1024	Carn Galver, Morvah	—	¾	
5120	Carn Valley, St. Dennis	1	2	
3000	Carthew Consols (cop. & lead), Wadebridge	4	6	
2000	Cassandra Anne (lead & cop.), Stoke Clim.	5	5¾ 6	
5000	Cefn Gwyn (silver-lead), Cardigan	1	1	
500	Comblawn (lead), Callington	8	8	
1600	Craig-y-Mwyn (lead), Llanrhiadr, Mont	8¼	10¼	
1000	Cwm Daren	1	3	
2000	Cwm Sebon	—	4	
2000	Cyfannedd Fawr (lead), Lanegryn	¼	¼	
3000	Dairhiew (copper and lead), Brecon	1¼	10	
768	Devon Great Tincroft, North Bovey	¼	6	
1000	Dhurode (copper) Ireland	2	5	
4000	Dolfrwynog (copper), Merioneth	¼	¼	
128	Drift Moor (tin), Sancreed	1	1¼	
1536	Duke of Cornwall (copper), St. Winnon	1	2	
2048	East Boringdon Park	¼	¾ 1	
128	East Carn Brea (copper), Redruth	4	3	
1000	East Trescoll	1	2¾ 3	2¾ 3¼
2048	East Wheal Josiah (copper), Tavistock	1¾	¾	
3 00	East Wheal Rashleigh, Lonreath	1s	3s 6d	
1024	Exmoor Eliza (copper), South Molton	4¼	3	
6000	Forest (copper and silver-lead), Devon	1¼	1	
1024	Freidd Llwydd Mines (lead)	1¼	3¼	
2500	Georgia Consols (tin), St. Ive's	2¼	7 7¼	
1000	Gelli-rei-vin (silver-lead), Cardiganshire	1	5	
6500	Great Bryn Consols (copper and tin)	1	1	
1024	Great Sheba Consols (tin and copper)	6	7 6	
5000	Great Wheal Martha (cop.), Stoke Clims.	—	1	
6000	Growa Slate Company, Camelford	5	5	
1024	La Min (Gwinear), tin and copper	3¾	6¾	
5000	Lampen Consols (copper), St. Neot	1	1	
1024	Moditonham & Marrabro' (copper & lead)	1¾	2¾ 3	
5000	New Copper Bottom (copper) Bridestowe	1¾	1¾	
2000	North Levant (tin and copper), St. Just	1¾	3	
2000	North Tamar Consols (silver-lead & cop.)	—	2¾	
1024	North Wh. Robert (copper), Walkhampton	2	2	
512	Old Brimpts (tin), Lydford, Ashburton	¾	12	
2048	Okel Tor (lead)	¼	¼	
2048	Plymouth Wh Yeoland Con. (tin), Plym.	1¾	5	
2000	Polgear (copper and tin)	1	3	
1024	Praed Consols (tin), Towednack	1¼	1¾ 1¾	
1024	Prince Albert (tin), Perranzabuloe	¼	1	
2048	Snowdon (copper), Carnarvonshire	3	3	
1024	South Plain Wood (copper), Ashburton	4¾	7¾	
12000	St. Enoder (copper and lead) St. Enoder	1	1¼	
999	St. Minver Consols (silver-lead)	1	5	
1024	Trannack United Mines (tin and copper)	1¼	1¾	
2048	Trebell Consols (tin and copper), Lanivet	1½	1¾ 1¾	
1024	Tremar (copper), Liskeard	1¾	1¾	
6000	Trenault (lime quarries)	21¾	21¾	
1000	Tyllwyd (lead), Cardiganshire	2	2¼	

Shares.		*Paid.*	*Last Price.*	*Present Price.*
4000	Tyn-y-Worglod (slate), near Carnarvon	4	4 5	
1024	United Mines (copper and tin), Tavistock	10	10	
1024	West Downs (copper and tin), Whitchureh	2	1¼	
1020	West Nantynawyn	1	1	
3000	West Shepherd (silver-lead and copper)	2¼	2	
2048	West Wheal Rose	2	2	
1024	West Wheal Virgin (tin), Sancreed	1¼	1¾ 2	
1024	Weston (lead), Cherbury, Shropshire	¾	¾	
3072	Wheal Augusta (tin), St. Just	1	1¾ 2	
5000	Wheal Caradon (copper), St. Cleer	1	1	
3000	Wheal Dora (tin and copper), St. Cleer	3¾	6	
1024	Wheal Emily (antimony and lead)	3	5	
1070	Wheal Enys	1¼	—	
100	Wheal Friendly (tin), St. Agnes	70	65	
1536	Wheal Gill	1	—	
1000	Wheal Guskis (tin and copper), St. Hillary	¼	1	
2048	Wheal Hamlyn, near Oakhampton	1	1	
2048	Wheal Harris (lead), near Tavistock	¼	1	
6000	Wheal Langford (copper and silver-lead)	¼	1¾ 2	
1024	Wheal Mary Ann (copper), Bridestow	—	2	
1024	Wheal Mary Emma, Tavistock	1¼	3¾ 3¾	
1024	Wheal May (silver-lead and copper	2¼	2¼	2¾
1080	Wheal Oak, near Helston	1¼	1¾	
3000	Wheal Penhale (lead and copper)	2¾	4¼	
128	Wheal Pollard (copper), St. Cleer	15¾	10	
210	Wheal Prospect	4	7	
5000	Wheal Ruth (tin), Shepstor	2	2	
512	Wheal Sophia (silver-lead), Lezant	7	7	
2000	Wheal Tom (tin & copper), Stoke Clims.	5	11¼	
256	Wheal Tremaine (copper), St. Ervan	11	2¼	
4224	Wheal Trewane (silver-lead), St. Kew	1¾	2¾	
3300	Wheal Trescoll (tin), Lanivet, Bodmin	3	1¾	
128	Wheal Violet (tin and cop.), St. Stephens	5	8 20	
256	Wheal Vlow	2	10	

	FOREIGN MINES.	*Paid.*	*Present Price.*
12000	Annotto Bay Mining Association (copper), Jamaica	1	5¾ 6
12000	Liguanea and General Mining Company of Jamaica	1	

THE METAL TRADE—GOVERNMENT RETURNS.

From the monthly returns of the Board of Trade, we extract the following detailed account of the quantities of metals of home produce and manufacture, exported from the United Kingdom during the month ending 5th May last, as compared with the same period of the two previous years:—

Metals.		1849.	1850.	1851.
Iron—Pig	*tons*	16,358	19,566	24,307
Bar, bolt, and rod		33,925	43,863	48,860
Wire		283	347	377
Cast		957	2,130	1,806
Wrought of all sorts		10,440	14,644	13,982
Steel—Unwrought		535	1,078	1,044
Copper, in bricks and pigs	*cwts.*	8,522	13,726	9,520
Sheets, nails, &c. (including mixed or yellow metal for sheathing)		16,579	16,064	18,600
Wrought of other sorts		1,996	973	1,740
Brass of all sorts		1,325	1,093	1,792
Lead	*tons*	1,611	1,730	1,435
Tin—Unwrought	*cwts.*	2,175	3,493	1,486
Tin-plates	*value*	£50,839	£80,960	£103,735

This important branch of business is thus shown to be fully maintaining its former activity, and even tending to a further augmentation. The aggregate declared value of all the metals comprised in the above table is 823,354*l.* in 1851, 814,498*l.* in 1850, and 653,925*l.* in 1849. We have thus an increase of 8856*l.* over last year, and of no less than 169,429*l.*, as compared with 1849. The returns for the four months present are of equally favourable comparison, the total amount being 3,021,713*l.* this year, against 2,780,810*l.* in 1850, and 2,249,697*l.* in 1849; showing an increase of 240,903*l.* over 1850, and 772,016*l.* over the previous year. Reverting to the various items in the month's returns, we find that nearly every one shows an increase over 1849, and a comparison with last year shows an increase in all the chief branches except copper and brass, the aggregate of which is 138,911*l.* against 142,371*l.* last year, and 120,484*l.* in 1849. Iron of all kinds is declared at 512,839*l.* against 506,392*l.* in 1850, and 417,131*l.* in 1849. Tin unwrought is still falling off, whilst the export of tin-plates continues to increase. Taking into consideration the circumstance that some other branches of our national industry, from causes easily explainable, show a slight decrease as compared with the same month in last year, at which period much activity prevailed, the continued upward movement observable in the metal trade is the more remarkable, and cannot fail to be regarded with satisfaction as an indication of prosperity to the metallic and mineral interests.

The exports of foreign and colonial produce for the month ending May 5 are as under:—

	1849.	1850.	1851.
Copper, unwrought and part wrought *cwts.*	4162	1060	2412
Iron, in bars, unwrought *tons*	231	167	103
Steel, unwrought	255	—	114
Lead, pig and sheet	226	215	588
Spelter	453	187	107
Tin, in blocks, ingots, bars, or slabs *cwts.*	370	254	212
Quicksilver *lbs.*	201,353	125,253	25,481

This branch of trade in most cases exhibits a decline; copper, however, is rallying, and the exports of foreign lead have been much larger this year. As scarcely any quicksilver has been imported this year, the falling off in the exports is easily accounted for.

The returns of the imports for the month ending May 5 are as follows:—

Metals.	1849.	1850.	1851.
Copper ore and regulus *tons*	6485	5522	2269
Copper, unwrought and part wrought *cwts*	35	4180	2184
Iron, in bars, unwrought *tons*	888	1509	1127
Steel, unwrought	89	2	60
Lead, pig and sheet	512	971	1055
Spelter	758	1388	1430
Tin, in blocks, ingots, bars, or slabs *cwts.*	424	1268	2848
Quicksilver *lbs.*	66,430	64,294	9207

These returns are very variable, but on taking the figures for the four months, as affording the best means of comparison, we find a very large increase in tin and spelter. Lead remains steady; whilst the import of copper is diminishing, and that of iron rather looking up.

CORNISH STEAM-ENGINES.

[Abstract from Browne's *Cornish Engine Reporter*, from April 21 to May 20.]

PUMPING-ENGINES.

Number reported	29
Average load per square inch on the piston, in lbs.	12·7
Average number of strokes per minute	5·8
Gallons of water drawn per minute	5217
Average duty of 17 engines—being million lbs. l